

*The February 8th, 2017 Edition of THE REVENGE HUMP DAY!*

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Welcome to the February 8th, 2017 Edition of THE REVENGE HUMP DAY!

I have been watching the Superbowl since the beginning and I have to say that the 51st Superbowl was the best I have ever been privileged to watch. First off, I thought that Atlanta and pretty much put the game away in the first half with there 28 to 3 halftime score. But then Tom Brady and the Patriots came roaring back into the second half to tie the score at the end of the 4th quarter. God that was exciting. The overtime happened and Brandy and the Patriots blew down the field and scored the game wining touch down. WOW! The game was great, but it was even better watching it with the entire family. For that one night, Casa Bolgeo was turned into a sports bar which served Wangs and Pizza to the brood. It was great.

By the way, I will admit now that even though I think the world of Payton Manning, Johnny Unitas, Bart Star, and Terry Bradshaw, but Tom Brady is probably the best quarterback ever to have played football. His spectacular play in Superbowl 51 was inspiring and one for the record books. Also you have to admit his 5 Superbowl wins are beyond belief. Now when you consider this, think about the fact that the guy is 39 years old. Unbelievable.

Ms. Barbara and Mr. Bill (Durkin) celebrated the Superbowl with us and it was great. But what was even better we got to their 50th Wedding Anniversary with them. There was regular cake, cheese cake and vanilla ice cream to help us commemorate the event. Tristan "Bubba Bear" made sure his plate was piled high with cake and ice cream. I tried a small slice of cheese cake and ice cream and it tasted wonderful. Congratulations Ms. Barbara and Mr. Bill and 50 years of love and happiness together.

I was surprised how good the half time show was. Lady Gaga performed like a seasoned entertainer and she was wonderful. Also, I was so happy that she didn't interject any politics into her act. Honestly, I am getting tired of the constant whining and am ready for the country to get back to work of healing and living. Me thinks that some people protest too much concerning the outcome of the election. So maybe it's time to give it a rest. It would be interesting to hear what you think on this subject, so send in your comments to me next week.

So on that "question", why don't y'all sit back and relax because here's the best in gossip, jokes and science for your reading pleasure!

*Uncle Timmy*

<G>~<O>~<S>~<S>~<I>~<P>~<S>~<T>~<A>~<R>~<T>~<S>~<H>~<E>~<R>~<E>~<I>

THE NEXT LIBERTYCON MEETING WILL BE SUNDAY, FEBRUARY 12 @ 2PM @ CASA SPRAKER

From: "Brandy Spraker" [bspraker@libertycon.org](mailto:bspraker@libertycon.org)

The LibertyCon meeting will be held at Casa Spraker next Sunday, February 12, at 2pm. If you need directions, email Brandy at [brandy@libertycon.org](mailto:brandy@libertycon.org). There is always lots to talk about as we begin to come up to the detailed planning, probably a little more this time with all of the hotel changes that the Choo Choo is going through, so we'd love to have you there!!!



From: "Tim Bolgeo [tbolgeo@epbf.com](mailto:tbolgeo@epbf.com)

[http://application.dragoncon.org/dc\\_fan\\_awards\\_nominations.php](http://application.dragoncon.org/dc_fan_awards_nominations.php)

Welcome to the second annual Dragon Awards! A way to recognize excellence in all things Science Fiction and Fantasy. These awards will be by the fans, for the fans, and are your chance to reward those who have made real contributions to SF, books, games, comics, and shows. There is no qualification for submitting nominations or voting – no convention fees or other memberships are needed. The only requirement is that you register, confirm your email address for tracking nominations and voting purposes, and agree to the rules. This ensures that all votes count equally.

Once you have submitted a nomination for a category you cannot change it. If you are not sure about a category, then leave it blank. You can come back at a later date and add nominations for any category you leave blank using this same form. Make sure your name (First and Last), and the email address match your original submission. No need to fill in your original nominations, the form will append the new nominations to your prior list.

Nomination Deadline: July 24, 2017. We encourage you to get your nominations in early.

**IMPORTANT NOTES:** (please read)

Nominations should be first released between 7/1/2016 and 6/30/2017.

This form is to collect your nominations and sign you up for the voting process. Do not nominate a book for more than one category. If the same book is added more than once, all your nominations will be null.

A confirmation email will be sent the first time you submit nominations to verify a valid email address.

Your email address is used for tracking your nominations and to sign you up for the voting process.

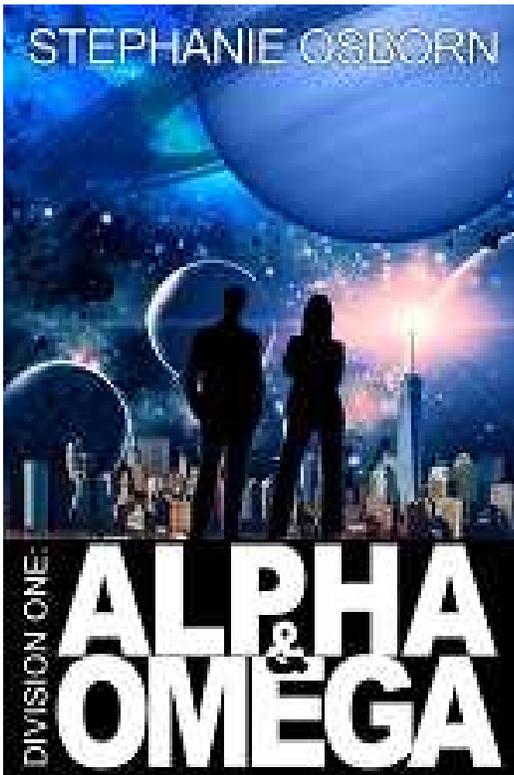
If you do not agree to the rules and confirm your email, your nominations will not be processed and you will not be added to the voting process.

RECENTLY I PUBLISHED A PRETTY COMPLETE LIST OF WORKS FROM BAEN BOOKS WITH THE EXCEPTION OF RICK BOATRIGHT'S "The Chronicles of Dr. Gribbleflote". BUT I WANT TO POINT YOU TO THE WORKS OF A NUMBER OF OTHER PROFESSIONAL WRITERS WHO DON'T WORK FOR BAEN. MINOR WRITERS ARE WORTHY OF THE REVIEW OF THEIR WORKS FOR THIS WORTHY AWARD. TAKE THE TIME TO MAKE GOOD DECISIONS ABOUT WHAT TO NOMINATE FOR THE DRAGON AWARDS. UT

An example of this would be a book that I just found reviewed on Sarah Hoyt's website by Stephanie Osborn call, "Division 1: Alpha and Omega". It's kind of a science fiction shootem' up bang-bang spy thriller. Looks like it's a fun book. UT

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THE PRINT VERSION OF DIVISION ONE: ALPHA & OMEGA IS IN RELEASE!



From: Stephanie Osborn

Time for a few announcements!

The print version of Division One: Alpha & Omega is in release!

I know my original announcement for Alpha & Omega indicated that the print release would occur on 24 January. And honestly, that's what we intended. Unfortunately, there were some glitches at the distributor that we didn't catch UNTIL release day. The end result was that the print books did not reach the book vendors for several more days past the originally planned release. I apologize for that delay...BUT THEY'RE THERE NOW! And they're gorgeous! Go have a look!

[https://www.amazon.com/Alpha-Omega-Division-Stephanie-Osborn/dp/0998288810/ref=tmm\\_pap\\_swatch\\_0?encoding=UTF8&qid=&sr=](https://www.amazon.com/Alpha-Omega-Division-Stephanie-Osborn/dp/0998288810/ref=tmm_pap_swatch_0?encoding=UTF8&qid=&sr=)

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**ANNOUNCEMENT:** My email address will be changing shortly as a result of a website move.

For those of you who frequent my website, you'll be seeing some changes soon. The site host I had been using happily for many years is (unexpectedly) shutting down, and I'll need to move my website. You won't have to change your bookmarks; my domain, stephanie-osborn.com, will still work. But some of the cool little bells and whistles, such as animated gifs and the like, may not work until the entire site is fully ported over and updated.

This will also include an email address change. Which means that my old email, steph-osborn@sff.net, won't work for much longer. I don't yet know what the new email addy will be. As soon as I get it all fixed and ready to go, I'll send out a quick bulletin to let you know!

Please bear with me while I go through these changes. I hope to have a familiar, easily-navigable website up and functioning by the end of February. It may not have all the little glitches ironed out (I hope it WILL!), but you can still stay up to date on my latest releases, public appearances, and the like.

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Our mailing address is:  
Novelist Stephanie Osborn  
P.O. Box 3412  
Huntsville, AL 35810

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#### ANNOUNCING OUR NEW FICTION FANZINE - ELDRITCH SCIENCE

From: "George Phillies" [phillies@4liberty.net](mailto:phillies@4liberty.net)

Eldritch Science is the new fanzine from the National Fantasy Fan Federation. Eldritch Science will publish art, poetry, and fiction including science fiction, swords and sorcery, supernatural, occult, and horror. Fiction contributions must be a minimum of 7500 words. We do not pay. You will retain all rights except our right to republish our zine in whatever formats are currently appropriate. We accept lengths up to complete novels.

We do not accept material using the intellectual property of others. The great detective and his assistant are appropriate; Holmes and Watson are not. Material with a major erotic component should seek alternative markets.

Editorial standards are high. In its prior incarnation under my editorship, Eldritch Science lost multiple authors to major SF publishing houses.

Send submissions electronically (.RTF is preferred for prose) to the Eldritch Science Editor, George Phillies [phillies@4liberty.net](mailto:phillies@4liberty.net).

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#### INNOVATIVE MUSIC VIDEOS

From: "Jim Woosley" [Jimwoosley@aol.com](mailto:Jimwoosley@aol.com)

Thomas Rhett - Star Of The Show

<https://www.youtube.com/watch?v=w8O-XzhtKGS>

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THE GREEN HILLS OF EARTH: A READING BY LEONARD NIMOY

From: "Jim Woosley" [Jimwoosley@aol.com](mailto:Jimwoosley@aol.com)

<https://www.youtube.com/watch?v=c0so7WSFpUg>

Part 1; links to additional at first video

I pray for one last landing  
On the globe that gave me birth;  
Let me rest my eyes on fleecy skies  
And the cool, green hills of Earth.

-- Robert A. Heinlein

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Re: The February 1st, 2017 Edition of THE REVENGE HUMP DAY!

From: "J. R. Madden" [JRMadDog@aol.com](mailto:JRMadDog@aol.com)

Rescind? No ... just "identify" ...

"... it is important that for every one new regulation issued, at least two prior regulations be identified for elimination ..."

"... Unless prohibited by law, whenever an executive department or agency (agency) publicly proposes for notice and comment or otherwise promulgates a new regulation, it shall identify at least two existing regulations to be repealed. ..."

<https://www.whitehouse.gov/the-press-office/2017/01/30/presidential-executive-order-reducing-regulation-and-controlling>

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Re: The February 1st, 2017 Edition of THE REVENGE HUMP DAY!

From: "Adam Grim" [Grimaf23@hotmail.com](mailto:Grimaf23@hotmail.com)

Re: Executive orders

A freeze is what you do when you don't know what to do. Unless there is an emergency, it's better to plan before you act, Trump is, by his own statements, acting before he plans.

The hiring freeze is based on a lie. It only effects the federal workforce, and that by any measure is already shrinking relative to the private workforce, and has been for many years. Also noteworthy, we're already in draw down by attrition situation due to the planned budget under Obama. The effect of the hiring freeze that I've seen so far has simply been to stop all departmental transfers.

ADAM, SINCE I WAS A FED FOR OVER 40 YEARS, I AM GOING TO TRY TO ANSWER SOME OF YOUR STATEMENTS. I HAVE BEEN THROUGH A NUMBER OF FREEZES IN FEDERAL AGENCIES AND IT HELPS TO LIMIT THE SIZE OF THEIR GROWTH. A FEDERAL AGENCY IS A LIKE ANY LIVING THING IN THAT IT WILL GROW TO MEET THE MAXIMUM SIZE IT'S ALLOWED TO. IT DOESN'T MEAN THAT IT WILL GET BETTER, IT JUST MEANS IT WILL GET BIGGER. SOMETIMES YOU HAVE TO TRIM A TREE BACK TO KEEP IT HEALTH. IN THE PAST 8 YEARS, THE LARGES SECTOR GROWTH IN JOBS HAS BEEN THE FEDERAL BUREAUCRACY. THAT IS A FACT THAT HAS BEEN PUBLISHED ALL OVER THE NEWS. UT

Can't disagree with the pipeline, but it is trivial on the scale the president works on.

Creating a double standing for environmental reviews based on vague criteria like "High Priority" sounds like a recipe for corruption.

The lobbying ban is really just a vague plan to ban lobbying in the future.

IS THIS A REALLY BAD THING?

Literally reducing the number of regulations is silly, since all regulations could be combined into one very long regulation without doing anything but making them harder to understand. Requiring the costs of new regulations be balanced out by cutting old regulations would be meaningful, except that the method for establishing the costs isn't clear, and there are massive exceptions. Assuming the spirit of the order ends up being followed, regulations costs in certain areas will be frozen and regulations cost in the exempted areas will go up, so Trumps version of reducing regulation actually involves regulation costs increasing.

HAVING WORKED IN THE POWER INDUSTRY FOR OVER 30 YEARS HAND HAVING TO DEAL DIRECTLY WITH REGULATORS WHO MAKE THE REGULATIONS I CAN TELL YOU THAT YOU ARE WRONG ON THIS ONE. I DON'T KNOW HOW MANY TIMES THE REGULATIONS CHANGE BECAUSE SOME NEW REGULATOR HAS 'A BETTER IDEA' THAT DIDN'T WORK 30 YEARS AGO AND STILL WON'T WORK. INCREASING REGULATIONS HAVE UNINTENDED CONSEQUENCES A LOT OF THE TIME AND THE REGULATORS DON'T HAVE TO PAY FOR IT. THE BUSINESSES THEY APPLY THE REGULATIONS DO. IT IS MY HOPE THAT THE CURRENT ADMINISTRATION WILL GET A HANDLE ON THE FEDERAL AGENCIES AND START TRIMMING THE UNNECESSARY REGULATIONS IN THE FEDERAL REGISTRY TO HELP BENEFIT THE PEOPLE AND BUSINESSES. UT

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Here's the snopes on your non-citizens voting study. <http://www.snopes.com/hillary-clinton-800000-votes-non-citizens/>

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Re: The February 1st, 2017 Edition of THE REVENGE HUMP DAY!

From: "Frank Brayman" [afranklin3@gmail.com](mailto:afranklin3@gmail.com)

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UT: "Also having someone to talk to that might not always agree with you is at times very helpful to you."

Tim, I agree whole heartedly on this one. Too often, we live in an echo chamber with people with identical views. That's why I value my 25 yr friendship with F--- and M--- V—H--- ----, who are about as far Left as I am Right. Surprisingly, F---- and I agree on many issues, though often for different reasons.

I ALSO HAVE BEEN FRIENDS WITH THEM FOR 25 OR 30 YEARS AND EVEN THOUGH WE DISAGREE ON A NUMBER OF TOPICS, I VALUE THEIR OPINIONS. UT

<L>~<I>~<B>~<E>~<R>~<T>~<Y>~<C>~<O>~<N>

Re: Firing of Acting Attorney General Sally Yates

From: "Patrick Gibbs" [PJG@patgibbs.com](mailto:PJG@patgibbs.com)

Sally Yates used to be the US Attorney for the Northern District of GA.

She was Acting Attorney General until yesterday and the only reason she was that was because the Dems in the Senate have been dragging their feet on confirming Jeff Sessions as AG. I guess the expeditious treatment given by the Senate to Obama's appointees in 2009 only applies as a precedent when a Dem is elected President.

In my opinion Ms. Yates should face a disciplinary complaint before the State Bar of Georgia for unprofessional conduct. She had an ethical duty to represent her client, the executive branch in making a good faith argument for the validity of the EO's. If you have any doubts as to the strength (including a discussion of the applicable federal statutes) of that argument, go to [www.nationalreview.com](http://www.nationalreview.com) and read the 2 or 3 columns that Andrew McCarthy, a retiree from the U.S. Justice Dept., has written about the EO's. Ms. Yates deserves a reprimand from the State Bar for her misconduct. That is the mildest form of punishment. An ethical attorney would have resigned as Acting AG if in good conscience that attorney could not represent the executive branch in any court challenge.

She wanted to showboat for the Democrat party so that in the future she could get appointed to some high office by a Democrat president. The best case to be made for her is that she is a pretentious, moral preening prima donna. President Trump was not doing anything that had not been done by some of his predecessors, including President Carter and President Obama.

The sad thing is that his pause in the admission of people from seven countries and of refugees is the mildest action he can take. There are a bunch of things that he should do to screen out Moslems who are Islamic supremacists from admission to the US. The San Bernardino terrorists qualified for a permanent bar from the US because of their jihadist beliefs. All one had to do was look at their social media. The biggest threat we are going to face in the next eight years will be from that sort of jihadist who holds a passport from practically any of the countries in Europe -- even the UK. That hypothetical terrorist may be a first or second generation Moroccan or Tunisian, or one of the "refugees" from Syria and countries East and South of Syria.

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Patrick J. Gibbs, P.C.  
Attorney at Law

PAT, EVEN THOUGH WE DISAGREE ON A LOT OF THINGS, I AM GLAD THAT WE CAN AGREE ON MS. YATES VIOLATION OF ETHICS. I THINK THAT THE WORST THING WE FOUND OUT ABOUT THIS CONFLICT IS THAT THE DEPARTMENT OF JUSTICE LAWYERS VETTED THE EXECUTIVE ORDER ON THE 7 COUNTRY HALT IN IMMIGRATION AND PRONOUNCED IT TO BE LEGAL AND THE ACTING ATTORNEY GENERAL STILL TRIED TO GRANDSTAND ON THIS ISSUE TO "DISAGREE" WITH THE PRESIDENT. I HADN'T THOUGHT ABOUT DISBARRING HER, BUT I COULD AGREE WITH THAT ALSO. UT

<L>~<I>~<B>~<E>~<R>~<T>~<Y>~<C>~<O>~<N>

Re: The February 1st, 2017 Edition of THE REVENGE HUMP DAY!

From: "Martha Knowles" [wildwoman54@att.net](mailto:wildwoman54@att.net)

Hi, Timmy,

Okay, you've finally gotten a response out of me. <g>

Re: President Trump's Executive Order regarding immigration and putting a hold on Muslims in particular.

I have friends and relatives that are worried, nay Scared, about what this means for them. My niece's husband dare not leave the country to visit his family in Turkey for fear he will not be allowed back to his wife and child. Another friend must wait until March to start naturalization procedures to become a citizen; she's frantic in the meantime, for fear of being 'rounded up', even though she is married to an American native. Yes, I know Trump said he was going to do this. Yes, I know he has the power to do this. But I also believe this country was founded by immigrants and that diversity has brought us to this country that is already Great. I don't know the answer. All I know is the effect it is having on individuals I know and love. And that's what we really need to be thinking about... the People of America.

I agree with you, mostly, on the regulatory orders, disagree with you on the Dakota Access Pipeline.

Yes, elections have consequences.

Blessings, Martha

<T>~<H>~<E>~<J>~<O>~<K>~<E>~<S>~<S>~<T>~<A>~<R>~<T>~<H>~<E>~<R>~<E>  
>

From: "Douglas Dudash"

DD: Found some .txt files on my drive today, and thought you might find some of them funny. Some are pretty dated. I think I need to clean more often!

CHILDREN'S SCIENCE EXAM ANSWERS

**Q: Name the four seasons.**

**A: Salt, pepper, mustard and vinegar.**

**Q: Explain one of the processes by which water can be made safe to drink.**

**A: Flirtation makes water safe to drink because it removes large pollutants like grit, sand, dead sheep and canoeists.**

**Q: What are steroids?**

**A: Things for keeping carpets still on the stairs.**

**Q: What happens to your body as you age?**

**A: When you get old, so do your bowels and you get intercontinental.**

**Q: What happens to a boy when he reaches puberty?**

**A: He says good-bye to his boyhood and looks forward to his adultery.**

**Q: Name a major disease associated with cigarettes.**

**A: Premature death.**

**Q: How are the main parts of the body categorized?**

**A: The body is consisted into three parts - the brainium, the borax and the abdominal cavity. The brainium contains the brain; the borax contains the heart and lungs, and the abdominal cavity contains the five bowels, A, E, I, O, and U.**

**Q: What is the fibula?**

**A: A small lie.**

**Q: What does "varicose" mean?**

**A: Nearby.**

**Q: Give the meaning of the term "Caesarean Section".**

**A: The Caesarean Section is a district in Rome.**

**Q: What does the word "benign" mean?**

**A: Benign is what you will be after you be eight.**

**Q: How is dew formed?**

**A: Dew is formed on leaves when the sun shines down on them and makes them perspire.**

**Q: What causes the tides in the oceans?**

**A: The tides are a fight between the Earth and the Moon. All water tends to flow towards the moon, because there is no water on the moon, and nature hates a vacuum. I forget where the sun joins in this fight.**

**Q: How can you delay milk turning sour?**

**A: Keep it in the cow.**

**A monsoon is a French gentleman.**

**Blood flows down one leg and up the other.**

For a dog bite, put the dog away for several days. If he has not recovered, then kill it.

For a nosebleed, put the nose much lower than the body until the heart stops.

For asphyxiation, apply artificial respiration until the patient is dead.

For fainting, rub the person's chest, or if a lady, rub her arm above the hand instead. Or put the head between the knees of the nearest doctor.

Genetics explains why you look like your father, and if you don't, why you should.

Germinate: To become a naturalized German.

H<sub>2</sub>O is hot water and CO<sub>2</sub> is cold water.

Liter: A nest of young puppies.

Momentum is something you give a person when they go away.

Mushrooms always grow in damp places, and so they look like umbrellas.

One of the main causes of dust is janitors.

Oxygen is pure gin; hydrogen is water.

Planet: A body of earth surrounded by sky.

The body consists of three parts: the brainium, the borax, and the abominable cavity. The brainium contains the brain, the borax contains the heart and lungs, and the abominable cavity contains the bowels, of which there are five – a, e, i, o, u.

The cause of perfume disappearing is evaporation. Evaporation gets blamed for a lot of things people forget to put the top on.

The pistol of a flower is its only protection against insects.

The skeleton is what is left after the insides have been taken out and the outsides have been taken off.

The word "trousers" is an uncommon noun because it is singular at the top and plural at the bottom.

There are 26 vitamins in all, but some of the letters are yet to be discovered.

Thunder is a rich source of loudness.

To prevent contraception, use a condominium.

To remove dust from the eye, pull the eye down over the nose.

**Vacuum: A large empty space where the Pope lives.**

**Vacuums are nothings. We only mention them to let them know we know they're there.**

**Water is composed of two gins: Oxygen and Hydrogin.**

**Water vapor gets together in a cloud. When it is big enough to be called a drop, it does.**

**When planets run around and around in circles, we say they are orbiting. When people do it, we say they are crazy.**

**When you breathe, you inspire. When you do not breathe, you expire.**

**When you smell odorless gas, it is probably carbon monoxide.**

**<J>~<O>~<K>~<E>~<S>**

### **TOP 11 REASONS WHY HAVING E-MAIL IS LIKE HAVING A PENIS**

**11. Those who have it would be devastated if it was ever cut off.**

**10. Those who have it think that those who don't are somehow inferior.**

**9. Those who don't have it may agree that it's neat, but think it's not worth the fuss that those who have it make about it.**

**8. Many of those who don't have it would like to try it, a phenomenon psychologists call E-mail Envy.**

**7. It's more fun when it's up, but this makes it hard to get any real work done.**

**6. In the distant past, its only purpose was to transmit information vital to the survival of the species. Some people still think that's the only thing it should be used for, but most folks today use it mostly for fun.**

**5. If you don't take proper precautions, it can spread viruses.**

**4. If you use it too much, you'll find it becomes more and more difficult to think coherently.**

**3. We attach an importance to it that is far greater than its actual size and influence warrant.**

**2. If you're not careful what you do with it, it can get you into a lot of trouble.**

**And the number one reason Why E-mail is Like a Penis:**

**1. If you play with it too much, you can go blind**

**<J>~<O>~<K>~<E>~<S>**

**The Speech**

A man had to go to a strange town to be the guest speaker at a business meeting. When he arrived at the Motel in town, he found that he had a lot of time before the meeting. He asked the clerk where the nearest golf course was

and was given directions on how to get there.

While playing on the front nine, he was going over the speech in his mind and became confused as to where he was on the course. Looking around, he saw a Lady playing ahead of him. He walked up to her and told her about his big meeting and the speech he was to make and his confusion about where he was on the course, asked her if she knew what hole he was playing. She replied " I'm on the 7th hole and you are a hole behind me, so you must be on the 6th hole". He thanked her and went back to his golf.

On the back nine the same thing happened. and he approached her again with the same request. She said "I'm on the 14th, you are a hole behind me, So you must be on the 13th". Once again he thanked her and returned to his play.

He finished his round and went into the club house where he saw the Lady sitting at the end of the bar. He asked the bartender if he knew the Lady. The bartender said that she was a sales lady and played the course often.

He approached her and said "let me buy you a drink to show my appreciation for your help. I understand that you are a sales lady, well I am in sales also. What do you sell?"

She replied, "if I told you, you would only laugh".

"No I wouldn't", he said and persisted that she tell him what she sold.

"Well if you must know", she answered, "I sell Tampax".

With that, he fell on the floor and laughed so hard he almost lost his breath.

She said "see I knew you would laugh".

"That's not what I'm laughing at" he replied, "I'm a toilet paper salesman, so I'm still a hole behind you!"

<J>~<O>~<K>~<E>~<S>

## ON THE BUS

A bus stops and two men get on. They seat themselves and engage in animated conversation. One man is Italian with a strong accent. The lady sitting behind them ignores their conversation at first, but her attention is galvanized when she hears the Italian man say the following:

"Emma come first. Den I come. Den two asses come together. I come once-a-more. Two asses, they come together again. I come again and pee twice. Den I come one lasta time."

"You foul-mouthed swine," said the lady indignantly. "In this country we don't talk about our sex lives in public!"

"Hey, coola down lady," said the man. "Who's talkin' about a sexa? I'mma justa tellun my frienda how to spella 'Mississippi'."

<J>~<O>~<K>~<E>~<S>

**THINGS TO PONDER.....**

If a man is standing in the middle of the forest speaking and there is no woman around to hear him, is he still wrong?

If a deaf person swears, does his mother wash his hands with soap?

If someone with multiple personalities threatens to kill himself, is it considered a hostage situation?

Isn't it a bit unnerving that doctors call what they do "practice?"

When sign makers go on strike, is anything written on their signs?

Why isn't there mouse-flavored cat food?

Why do they lock gas station bathrooms? Are they afraid someone will clean them?

If a stealth bomber crashes in a forest, will it make a sound?

If a turtle doesn't have a shell, is he homeless or naked?

Why don't sheep shrink when it rains?

Can vegetarians eat animal crackers?

If the police arrest a mime, do they tell him he has the right to remain silent?

Why do they put Braille on the drive-through bank machines?

How do they get the deer to cross at that yellow road sign?

Why do they sterilize the needles for lethal injections?

Why did kamikaze pilots wear helmets?

Is it true that cannibals don't eat clowns because they taste funny?

<J>~<O>~<K>~<E>~<S>

## HOW TO GET TO THE TOP - CORPORATE LESSONS

### Lesson number one:

A crow was sitting on a tree, doing nothing all day. A small rabbit saw the crow, and asked him, "Can I also sit like you and do nothing all day long?" The crow answered: "Sure, why not." So, the rabbit sat on the ground below the crow, and rested. All of a sudden, a fox appeared, jumped on the rabbit and ate it.

Moral of the story: To be sitting and doing nothing, you must be sitting very, very high up.

### Lesson number two

A turkey was chatting with a bull. "I would love to be able to get to the top of that tree," sighed the turkey, "but I haven't got the energy."

"Well, why don't you nibble on some of my droppings?" replied the bull.

"They're packed with nutrients." The turkey pecked at a lump of dung and found that it actually gave him enough strength to reach the first branch of the tree. The next day, after eating some more dung, he reached the second branch. Finally after a fortnight, there he was proudly perched at the top of the tree. Soon he was promptly spotted by a farmer, who shot the turkey out of the tree.

Moral of the story: Bullshit might get you to the top, but it won't keep you there.

### Lesson number three

When the body was first made, all the parts wanted to be Boss. The brain said, "I should be Boss because I control the whole body's responses and functions." The feet said, "We should be Boss as we carry the brain about and get him to where he wants to go." The hands said, "We should be the Boss because we do all the work and earn all the money." And so it went on and on with the heart, the lungs and the eyes until finally the asshole spoke up. All the parts laughed at the idea of the asshole being the Boss. So the asshole went on strike, blocked itself up and refused to work. Within a short time the eyes became crossed, the hands clenched, the feet twitched, the heart and lungs began to panic and the brain fevered. Eventually they all decided that the asshole should be the Boss, so the motion was passed. All the other parts did all the work while the Boss just sat and passed out the shit!

Moral of the story: You don't need brains to be a Boss - any asshole will do.

<J>~<O>~<K>~<E>~<S>

**ONLY IN AMERICA** by Yakov Smirnoff (A Russian born Comedian)

Only in America...can a pizza get to your house faster than an ambulance.

Only in America...are there handicap parking places in front of a skating rink.

Only in America...do people order double cheese burgers, a large fry and a diet coke.

Only in America...do banks leave both doors open and then chain the pens to the counters.

Only in America...do we leave cars worth thousands of dollars in the driveway and leave useless things and junk in boxes in the garage.

Only in America...do we use answering machines to screen calls and then have call waiting so we won't miss a call from someone we didn't want to talk to in the first place.

Only in America...do we buy hot dogs in packages of ten and buns in packages of eight.

<J>~<O>~<K>~<E>~<S>

After a two year long study, The National Science Foundation announced the following results on Corporate America's recreation preferences:

1. The sport of choice for unemployed or incarcerated people is: > BASKETBALL
2. The sport of choice for maintenance level employees is: BOWLING
3. The sport of choice for front line workers is: FOOTBALL
4. The sport of choice for supervisors is: BASEBALL
5. The sport of choice for middle management is: TENNIS
6. The sport of choice for corporate officers is: GOLF

CONCLUSION: The higher you are in the corporate structure, the smaller your balls become.

<J>~<O>~<K>~<E>~<S>

#### GREAT TRUTHS ABOUT LIFE THAT ADULTS HAVE LEARNED

1. Raising teenagers is like trying to nail Jell-O to a tree.
2. There's always a lot to be thankful for if you take time to look for it. For example, I am sitting here thinking how nice it is that wrinkles don't hurt.
3. Reason to smile: Every seven minutes of every day, someone in an aerobics class pulls a hamstring.
4. The bet way to keep kids at home is to make the home a pleasant atmosphere ...and let the air out of their tires.
5. Families are like fudge...mostly sweet with a few nuts.
6. Middle age is when you choose cereal for the fiber, not the toy.
7. The more you complain, the longer God lets you live.

8. If you can remain calm, you don't have all the facts.

9. Eat a live toad first thing in the morning, and nothing worse can happen to you the rest of the day.

10. You know you're getting old when you stoop to tie your shoes and wonder what else you can do while you're down there.

<J>~<O>~<K>~<E>~<S>

### **A WEEK IN HELL**

One day a guy dies and finds himself in hell. As he is wallowing in despair, he has his first meeting with a demon...

**Demon:** Why so glum?

**Guy:** What do you think? I'm in hell!

**Demon:** Hell's not so bad. We actually have a lot of fun down here...you a drinking man?

**Guy:** Sure, I love to drink.

**Demon:** Well you're gonna love Mondays then. On Mondays that's all we do is drink. Whiskey, tequila, Guinness, wine coolers, diet tab and fresca...we drink till we throw up and then we drink some more!

**Guy:** Gee that sounds great.

**Demon:** You a smoker?

**Guy:** You better believe it!

**Demon:** All right! You're gonna love Tuesdays. We get the finest cigars from all over the world and smoke our lungs out. If you get cancer – no biggie-you're already dead, remember?

**Guy:** Wow...that's...awesome!

**Demon:** I bet you like to gamble.

**Guy:** Why yes, as a matter of fact I do.

**Demon:** Cause Wednesdays you can gamble all you want. Craps, Blackjack, Roulette, Poker, Slots, whatever... If you go Bankrupt...well, you're dead anyhow.

**Demon:** You into drugs?

**Guy:** Are you kidding? Love drugs! You don't mean...

*The February 8th, 2017 Edition of THE REVENGE HUMPH DAY!*

*Page 17 of 44*

Demon: That's right! Thursday is drug day. Help yourself to a great big bowl of crack, or smack. Smoke a doobie the size of a submarine. You can do all the drugs you want - you're dead who cares! O.D.!!

Guy: WOW !! I never realized Hell was such a cool place!!

Demon: You gay?

Guy: No....

Demon: Oooh, you're gonna hate Fridays.

DOUG HAS SO MANY JOKES ON HIS HARD DRIVE THAT I AM GOING TO CONTINUE THE JOKES OVER THE NEXT FEW WEEKS UNTIL THEY RUN OUT. THANKS DOUG FOR CLEANING OUT YOUR HARD DRIVE. UT

<J>~<O>~<K>~<E>~<S>~<of>~<the>~<W>~<E>~<E>~<K>

From: "Jim Woosley" [Jimwoosley@aol.com](mailto:Jimwoosley@aol.com)

#### BEAR REMOVAL

A man in Asheville,NC woke up Tuesday to find a bear on his roof. So he looked in the yellow pages and sure enough, there's an ad for "Buncombe County Bear Removers."

He calls the number, and the bear remover says he'll be over in 30 minutes. The bear remover arrives, and gets out of his van. He's got a ladder, a baseball bat, a shotgun and a mean old pit bull.

"What are you going to do," the homeowner asks?

"I'm going to put this ladder up against the roof, then I'm going to go up there and knock the bear off the roof with this baseball bat. When the bear falls off, the pit bull is trained to grab his testicles and not let go. The bear will then be subdued enough for me to put him in the cage in the back of the van."

He hands the shotgun to the homeowner.

"What's the shotgun for?" asks the homeowner.

"If the bear knocks me off the roof,..... shoot the dog."

<J>~<O>~<K>~<E>~<S>~<of>~<the>~<W>~<E>~<E>~<K>

From: "Ray Beloate" [beerman@rittermail.com](mailto:beerman@rittermail.com)

#### SCRABBLE

This is one of the cleverest E-mails I've received in a while. Someone out there must be "deadly" at Scrabble.

**PRESBYTERIAN:**

When you rearrange the letters:  
**BEST IN PRAYER**

**ASTRONOMER:**

When you rearrange the letters:  
**MOON STARER**

**DESPERATION:**

When you rearrange the letters:  
**A ROPE ENDS IT**

**THE EYES:**

When you rearrange the letters:  
**THEY SEE**

**GEORGE BUSH:**

When you rearrange the letters:  
**HE BUGS GORE**

**THE MORSE CODE:**

When you rearrange the letters:  
**HERE COME DOTS**

**DORMITORY:**

When you rearrange the letters:  
**DIRTY ROOM**

**SLOT MACHINES:**

When you rearrange the letters:  
**CASH LOST IN ME**

**ELECTION RESULTS:**

When you rearrange the letters:  
**LIES - LET'S RECOUNT**

**SNOOZE ALARMS:**

When you rearrange the letters:  
**ALAS! NO MORE Z'S**

**A DECIMAL POINT:**

When you rearrange the letters:  
**I'M A DOT IN PLACE**

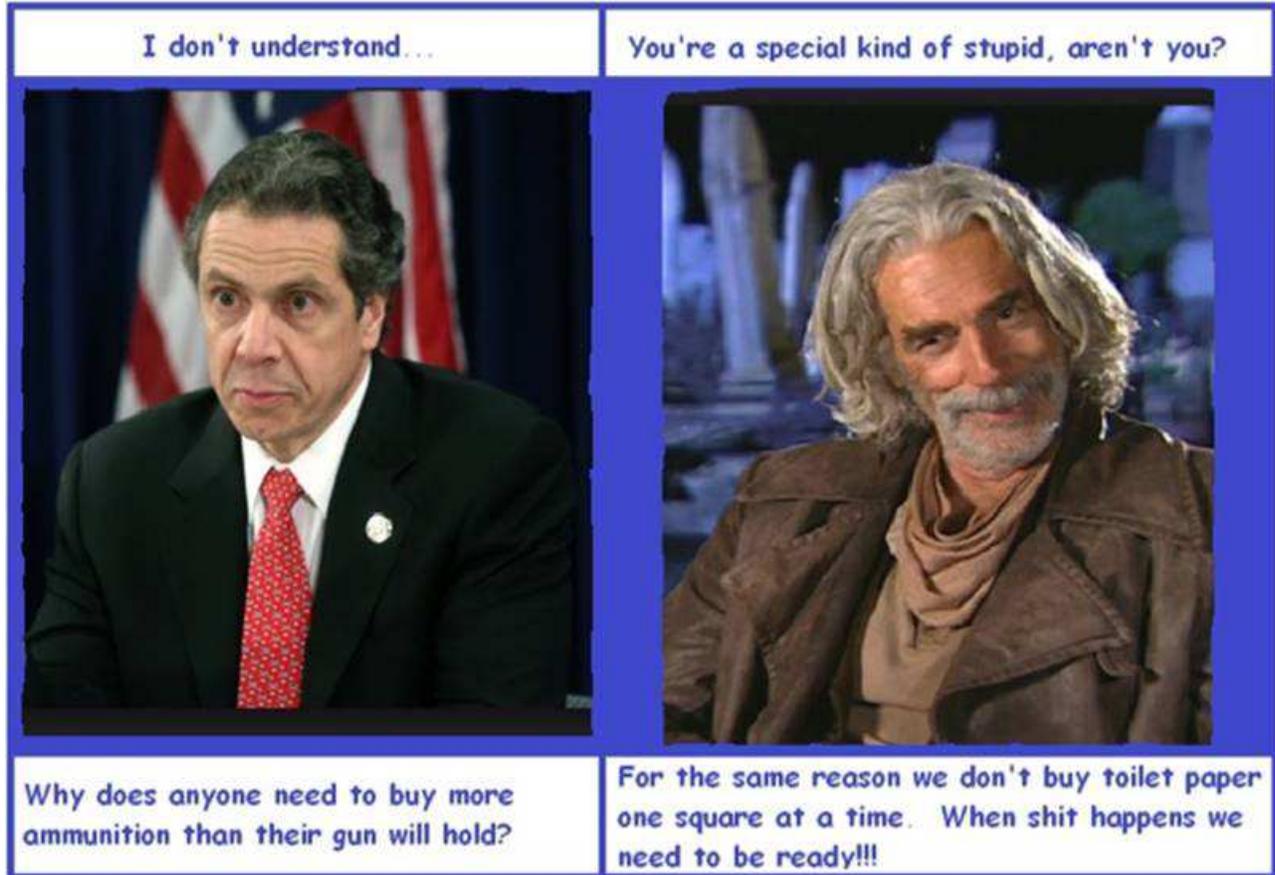
**THE EARTHQUAKES:**

When you rearrange the letters:  
**THAT QUEER SHAKE**

**ELEVEN PLUS TWO:**

When you rearrange the letters:  
**TWELVE PLUS ONE**

<J>~<O>~<K>~<E>~<S>



<YOU>~<>~<JUST>~<>~<CAN'T>~<>~<MAKE>~<>~<THIS>~<>~<STUFF>~<>~<UP!>

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Tim Bolgeo" [tbolgeo@epbf.com](mailto:tbolgeo@epbf.com)

I SLEPT IN TOM BRADY'S BIOCERAMIC PAJAMAS

By Mike Prospero Reviews Editor, Tom's Guide and Laptop Mag, Published February 06, 2017

<http://www.foxnews.com/tech/2017/02/06/slept-in-tom-bradys-bioceramic-pajamas.html>

At 39, Tom Brady is a physical marvel. Despite playing professional football for the better part of 20 years, he remains in peak form, and he just won a record fifth Super Bowl . Part of the secret, he says, is getting some serious shut-eye.

To that end, he worked with Under Armour, one of his main sponsors, to create a wearable that not only helps him sleep better, but also recover faster: pajamas.

Dubbed “Athlete Recovery Sleepwear,” the PJs (\$200 for the tops and bottoms) are imprinted on the inside with bioceramic materials, which “take that heat and refract it back in the form of far infrared radiation,” according to Glenn Silbert, the SVP of Global Product at Under Armour.



Far infrared radiation, which can penetrate up to 1.5 inches beneath the skin, was found in one study to have some health benefits by increasing circulation to those areas of the body. Bioceramic clothing can even help reduce cellulite, if Dr. Oz is to be believed.

Under Armour isn’t the first company to market bioceramic clothing and recovery equipment, but they’re the first with the backing of a four-time Super Bowl winner. “We’re not making specific medical claims against it,” Silbert said, before saying that bioceramics will help you recover faster. But, at \$200 for the tops and bottoms, you’ll need the salary of a first-round draft pick to afford this high-tech sleepwear.

Since I’m the same age, and in nearly identical shape to the Patriots quarterback (ahem), I wondered if his jammies would work equally well on me. So, I wore his Athlete Recovery Sleepwear for a week to see what would happen.

#### **SATURDAY**

Tom Brady threw for 287 yards, two touchdowns and two interceptions in the Patriots’ 34-16 win over the Houston Texans in the divisional round of the AFC playoffs. I made a really nice brisket with my sous vide, had some wine, then went to bed wearing the “Athlete Recovery Sleepwear.” Advantage: Me.

#### **SUNDAY**

As someone who usually wears shorts and a T-shirt to bed, I found Tom's Brady's PJs very comfortable! They're soft, and kept me at a nice temperature. They breathe pretty well, too. "It's a synthetic blend, with 4-way stretch," Silbert said. "We've used the word 'yummy'; it doesn't feel too warm, and feels great on the skin."

After a lazy start to the day, I went out for a 4-mile run with my GPS watch before settling in to watch the other two NFL games.

## MONDAY

While Tom Brady curled up with Gisele, I snuggled up to my wife and our two cats. I had today off, so I spent most of it lounging around in my Tom Brady jams watching TV. However, Rocky came on, and I was inspired to go out for another 4-mile run. I rewarded myself with some Chinese food before slipping back into my PJs. I hear Brady doesn't even eat strawberries. You call that living?

## TUESDAY

Another good night's rest, even though one of the cats jumped on my dresser and another started meowing for its breakfast at 5:30 in the morning.

## WEDNESDAY

By the way, these pajamas aren't cheap. The three-quarter-sleeve shirt top and full-length pants cost \$100 each; the short-sleeve shirt and shorts cost \$79 each. The women's versions are about the same price, too. This thought crossed my mind when my cats started clawing at the pants.

## THURSDAY

After wearing them for four straight days, Tom Brady's PJ's are starting to smell a little like Tom Brady's locker. If you want to wear them all the time, you'll probably need a second pair. I don't know how many people who will drop \$400 on sleepwear, though.

## FRIDAY

Took it easy today, as I had to get up early on Saturday to go skiing. Now that I've washed the pajamas, they smell nice and fresh, and I had a restful sleep — before waking up at 5 a.m.

"On the sleep side, specifically, what we've found," Silbert said, "is that people who wore this, versus people who didn't, fell asleep faster, slept more soundly, and ultimately slept longer."

## SATURDAY

Went skiing all day, and then slipped into the pajamas that evening. Are they extremely comfortable? Definitely. Did they help me fall asleep faster, and get some more Zzzs? For sure. Have they soothed my aching joints any faster than what I usually wear? Not that I can tell. Would I spend \$200 on PJs? Probably not.

<YOU>~<>~<JUST>~<>~<CAN'T>~<>~<MAKE>~<>~<THIS>~<>~<STUFF>~<>~<UP!>

**YOU JUST CAN'T MAKE THIS STUFF UP!**

From: "Jim Woosley" [Jimwoosley@aol.com](mailto:Jimwoosley@aol.com)

**CHINA'S SECRET TRUMP CARD: COULD BEIJING DEPRIVE OUR MILITARY OF CRITICAL DEFENSE COMPONENTS?**

By John Moody, Published February 03, 2017, FoxNews.com

<http://www.foxnews.com/opinion/2017/02/03/chinas-secret-trump-card-could-beijing-deprive-our-military-critical-defense-components.html>



FILE -- Jan. 17, 2017: China's President Xi Jinping speaks at the World Economic Forum in Davos, Switzerland. (AP Photo/Michel Euler)

Candidate Donald Trump promised to bring jobs back to America, rebuild our military, and on trade get tough with China, which he said was "raping" our economy. President Trump may find his administration

the victim of exactly the job-exporting policies he railed against and face the very real possibility that China could cut off U.S. access to 17 rare materials vital to our advanced aircraft and guided missile systems.

Among major U.S. military projects imperiled by a potential China squeeze play is a \$340 billion Navy program to create new, Columbia-class nuclear submarines, and a new electromagnetic aircraft launch (EMAL) system, which the Navy hopes to use for catapults that launch planes from aircraft carriers.

The 17 materials, known as rare earth elements (REE), are essential to the production of the high-performance permanent magnets used in both those systems, as well as in motors and missiles, GPS systems, satellite imaging, night vision goggles, and consumer products like smartphones and flat television screens. And for precisely the reasons Candidate Trump cited for the decline of American manufacturing and the loss of U.S. jobs, China is now in a position to cut off our supply of processed rare earth elements if it feels Trump is pushing too hard on trade and economic issues—or anything else.

"Absolutely, China could cut off the supply," said Jeff Green, a defense industry analyst in Washington, D.C. "Processing rare earths is the end of the hose. China controls the spigot the hose is attached to."

This dire situation came about largely as a result of a U.S. decision to rely on China, which is estimated to produce 90 percent of all processed rare earth elements sold to U.S. consumers, including the Pentagon. In 1995, the Clinton administration allowed two U.S. rare earth producers, in North Carolina and Indiana (the home state of Vice President Mike Pence) to go out of business. They transferred their production capacity to China, leaving it as the world's only large-scale REE supplier.

The supply chain worked smoothly until 2010, when the Japanese navy detained a Chinese fishing boat as part of a territorial dispute. China promptly choked off REE sales to Japan, and imposed worldwide supply quotas. Almost overnight, the price of REEs soared 4,000 per cent worldwide, demonstrating China's ability to control the market at will.

Sensing an opportunity, a Colorado-based company called Molycorp tried to ramp up American REE production, using a mine and plant in southeastern California known as Mountain Pass. When China lost a World Trade Organization challenge and revoked its production quotas, the price of REEs tumbled and Molycorp found itself refining a product that could be made much more cheaply, and of higher quality, in China.

The Obama administration, determined to support renewable sources of energy, declined to bail out Molycorp, even while pumping hundreds of millions of dollars into a solar panel company known as Solyndra. Solar cells also use REEs. Solyndra ended up importing solar cells from China. The company went bankrupt, as did Molycorp in 2015.

It is unclear what the Trump administration can do to eliminate U.S. reliance on China for REEs, at least in the short term. Later this month, a court in Delaware is expected to authorize an auction to bring Molycorp out of bankruptcy, and, potentially revive REE processing in California.

The problem is that REE production technology was transferred to China during the Clinton administration, and the Chinese are now thought to have an insurmountable advantage.

In 1992, Chinese leader Deng Xiaoping, said, "The Middle East has oil. China has rare earth."

The implications of that remark are now being felt. They may include profoundly challenging a U.S. president who came to power promising to bring China to heel.

John Moody is Executive Vice President, Executive Editor for Fox News. A former Vatican correspondent and Rome bureau chief for Time magazine, he is the author of four books, including "Pope John Paul II : Biography."

THE US HAS DEPOSITS OF RARE EARTH ELEMENT BUT HAS BEEN HAMPERED FROM REFINING THEM BY EPA REGULATIONS. THE DEPOSITS CAN BE MINED SAFELY. YOU CAN EVEN MINE COAL ASH PILES FROM FOSSIL PLANTS TO GET REE'S. I THINK IT IS ABOUT TIME THAT WE PUT NATIONAL INTEREST IN FRONT OF POLITICAL CORRECTNESS. UT

<YOU>~<>~<JUST>~<>~<CAN'T>~<>~<MAKE>~<>~<THIS>~<>~<STUFF>~<>~<UP!>

YOU JUST CAN'T MAKE THIS STUFF UP!

From: "Mike Williamson" [mzmadmike@gmail.com](mailto:mzmadmike@gmail.com)

The entire current generation summed up

This is what happens when you add the voice over of an old documentary about mental illness onto video clips of SJWs.

The scary thing is, it still actually makes sense.

<https://www.facebook.com/TheRebelPatriot/videos/1798423293760434/?pnref=story>

THIS IS SCARY AND NOT FUNNY BUT IT DOES MAKE A WEIRD KIND OF SENSE. THESE CURRENT GENERATION OF CHILDREN IN THE US HAVE BEEN CODDLED SO MUCH THAT I SOMETIMES WONDER WHAT WORLD AND REALITY THEY ARE LIVING IN. UT

<S>~<C>~<I>~<E>~<N>~<C>~<E>~<S>~<T>~<A>~<R>~<T>~<S>~<H>~<E>~<R>~<E>

From: "Tim Bolgeo" [tbolgeo@epbfi.com](mailto:tbolgeo@epbfi.com)

#### SCIENTISTS DEVELOP A "BETTER WAY" TO PRODUCE RENEWABLE HYDROGEN

Scientists at the Department of Energy's National Renewable Energy Laboratory have developed a "better way" to make hydrogen using renewable energy, according to a paper published this month in Nature Energy

By Melissa C. Lott on January 29, 2017

[https://blogs.scientificamerican.com/plugged-in/scientists-develop-a-better-way-to-produce-renewable-hydrogen/?WT.mc\\_id=SA\\_TECH\\_20170131](https://blogs.scientificamerican.com/plugged-in/scientists-develop-a-better-way-to-produce-renewable-hydrogen/?WT.mc_id=SA_TECH_20170131)

Scientists at the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) have developed a "better way" to make hydrogen using renewable energy according to a paper published this month in Nature Energy.

Hydrogen has many potential applications and is already used to upgrade crude oil for fuel production and in the synthesis of ammonia (which is critical in food production). Today, this hydrogen is commonly produced using steam reformation processes that rely on natural gas. But, scientists have been working on ways to swap out this fossil fuel for renewable energy sources.

One such method includes the use of photoelectrochemical (PEC) devices that can absorb sunlight and use it directly to split water molecules. Broadly speaking, these devices can convert the energy in sunlight into hydrogen and oxygen without the need for natural gas and at potentially higher efficiencies than electrolysis.

These PEC devices have significant promise but scientists have struggled to produce a design that is durable enough to become commercially viable. However, according to the new paper, researchers have made a significant stride in improving the durability of PEC devices, bringing them one step closer to commercialization.

Their new method is based on research produced 18 years ago by John Turner, a research fellow at NREL who has been with the labs since 1979. In his earlier work, Turner designed a tandem solar cell comprised of several layers of gallium indium phosphide (GaInP<sub>2</sub>) and gallium arsenide (GaAs) semiconductors. These layers absorb sunlight and produce enough power to split water molecules into hydrogen and oxygen.

Turner's device held the record for the highest solar-to-hydrogen conversion efficiency until 2015. But, despite this high efficiency the device struggled to make sense commercially as it degraded quickly.

In their new design, researchers have improved on Turner's design by inserting a protective layer – comprised of titanium dioxide (TiO<sub>2</sub>) and molybdenum sulfide (MoS<sub>x</sub>) – to defend the GaInP<sub>2</sub> layers from the negative effects of the acidic solution to which they are exposed. In turn, they have been able to increase the longevity of this PEC device.

This research effort was led by Jing Gu, a postdoc researcher who worked with John Turner before becoming an assistant professor at San Diego State University. The other co-authors are all based at NREL and include (in addition to Turner) Jing Gu, Jeffery A. Aguiar, Suzanne Ferrere, Xerxes Steirer, Yong Yan, Chuanxiao Xiao, James L. Young, Mowafak Al-Jassim, and Nathan R. Neale.

<S><C><I><E><N><C><E>

## BIZARRE METAL CONDUCTS ELECTRICITY WITHOUT HEATING UP

Colin Jeffrey, February 1, 2017

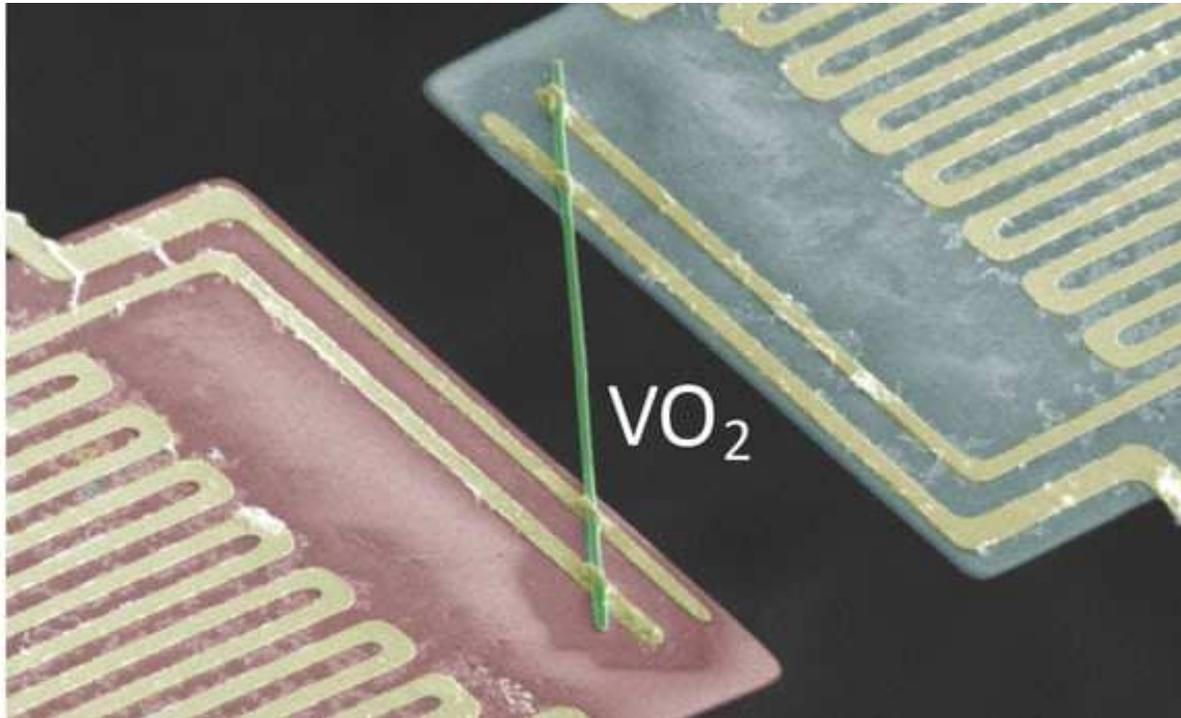
<http://newatlas.com/vanadium-conductor-berkeley/47626/>

In an apparent contradiction to textbook physics, a metal has been identified that conducts electricity but produces almost no heat in the process. Such a strange property may be expected to occur in conductors operating at cryogenic temperatures, but a team of researchers led by the Lawrence Berkeley National Laboratory claims to have discovered this unique property in vanadium dioxide at temperatures of around 67 °C (153 °F).

Of all the metals found on Earth, most are both good conductors of heat and electricity. This is because classic physics dictates that their electrons are responsible for both the movement of electrical current and the transfer of heat. This correlation between electrical and thermal conductivity is dictated by the Wiedemann-Franz Law, which basically says that metals that conduct electricity well are also good conductors of heat.

However, metallic vanadium dioxide (VO<sub>2</sub>) seems to be different. When the researchers passed an electrical current through nanoscale rods of single-crystal VO<sub>2</sub>, and thermal conductivity was measured, the heat produced by electron movement was actually ten times less than that predicted by calculations of the Wiedemann-Franz Law.

"This was a totally unexpected finding," said Professor Junqiao Wu, a physicist at Berkeley Lab's Materials Sciences Division. "It shows a drastic breakdown of a textbook law that has been known to be robust for conventional conductors. This discovery is of fundamental importance for understanding the basic electronic behavior of novel conductors."



**A team of researchers led by the Lawrence Berkeley National Laboratory claims to have identified a metal that passes electrical current without producing any heat(Credit: Junqiao Wu/Berkeley Lab)**

**And what a novel conductor VO<sub>2</sub> is.**

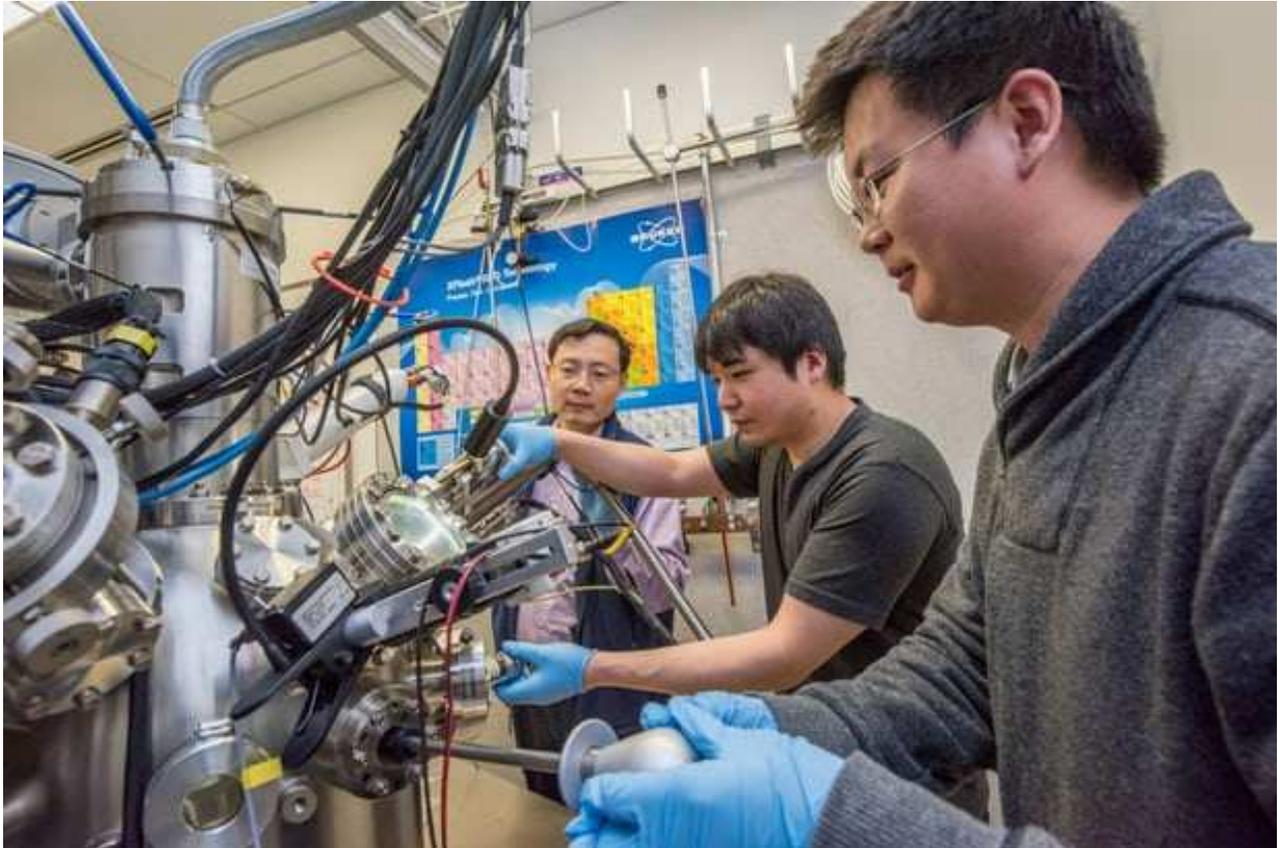
**When heated to 67 °C (153 °F), vanadium dioxide undergoes an abrupt transition from an insulator to a conductor, as its crystal structure transforms. This structural alignment of VO<sub>2</sub> into a metal provides clues as to why the material is able to transfer electrical current with negligible heating.**

**At ordinary temperatures, waves of phonons traveling through metals can interfere with the ability of electrons to pass freely through the structure, because the phonons pitch atoms out of their equilibrium state, in effect making them roadblocks.**

**Conversely, at ultra-low temperatures, the vibrational waves of phonons are severely curtailed as atoms are almost "frozen" into immobility. This allows the free flow of electrons with almost no temperature rise, because the electrons are largely unimpeded so that they don't crash into each other and lose energy. This is the reason why many metals become "superconductors" at cryogenic temperatures.**

**However, when vanadium dioxide is transitioning from an insulator to a conductor, it also shows a remarkably low thermal energy release, indicating that electrons in the material are somehow able to flow freely to produce a current, but without the impediments to their movement found in ordinary metals that produce waste heat.**

**As a result of interpreting results from computer simulations, much mathematical modelling, and the observation of X-ray scattering tests, the researchers believe that this is because VO<sub>2</sub> in its transition phase can be seen as a so-called "non-Fermi liquid."**



At the nanoscale level, the classical models for the conduction of heat begin to fail. As a result, other theories used in semiconductors, insulators and transient materials like VO<sub>2</sub>, are used where heat is seen to be carried primarily by vibrations in the crystal lattice known as phonons (originally from the ancient Greek, phonos, meaning "sound," but generally referring to any quantum-level compression wave).

#### **A SMOOTH VERSUS A BUMPY RIDE FOR ELECTRONS**

The Fermi liquid theory is a model of the normal state of most metals at low temperatures, where electrons collect other electrons on the path through the material and, therefore, accumulate a mass as long-life "quasiparticles" (discrete packets of energy with momentum and position). As such, these quasiparticles are subject to high dissipation (scattering) rates in normal metals at room temperatures due to interference from surrounding particles as they try to flow through the material.

Non-Fermi liquids, on the other hand, are thought not to produce long-lived quasiparticles for the transport of charge and heat. In these materials, if the electron density is not in equilibrium, electron diffusion moves like a liquid from areas of high-electron-density regions to low-density regions, generating current as it does so. In these cases – and likely in the case of VO<sub>2</sub> – the heat transfer is taken over by the phonons, where phonon-electron coupling carries away and dissipates heat as mechanical (vibrational) energy over the entire surface of the material.

#### **DOUBLE DUTY**

In other words, vanadium dioxide in its transition state appears to be doing double-duty acting partly as a conductive path, and somewhat like an insulator, to create a semiconductor-like state that keeps electrons in line and moving them forward in a uniform fashion.

"The electrons were moving in unison with each other, much like a fluid, instead of as individual particles like in normal metals," said Professor Wu. "For electrons, heat is a random motion. Normal metals transport heat efficiently because there are so many different possible microscopic configurations that the individual electrons can jump between. In contrast, the coordinated, marching-band-like motion of electrons in vanadium dioxide is detrimental to heat transfer as there are fewer configurations available for the electrons to hop randomly between."

In essence, normal Fermi liquid type metals have too many opportunities for electrons (as quasiparticles) to be knocked off track as they flow through, leading to the production of heat. As a non-Fermi liquid – such as VO<sub>2</sub> likely is in its transition state – eschews the creation of quasiparticles, the electrons remain flowing in more or less a straight line without colliding into other electrons and dissipating heat in the process.

#### **MORPHING MATERIAL**

According to the researchers, vanadium dioxide is also able to have its electricity to heat ratios altered by alloying it with other metals. Doping a single crystal of vanadium dioxide with tungsten, for example, the researchers decreased the temperature at which the phase transition from an insulator to a metal occurred, while improving the electron flow.

Vanadium dioxide is already a fascinating material that is transparent below about 30 °C (86 °F), and reflective of infrared light above 60 °C (140 °F). It also has the ability to become fully opaque in just 100 femtoseconds (a femtosecond is a quadrillionth of a second) when pulsed by a laser. Now, with added properties in its arsenal, the researchers believe that it may also have a role in areas of electrical thermal insulation.

Further experimentation, simulation, and debate will need to occur to determine whether or not vanadium dioxide is a non-Fermi liquid at its transition point (particularly one that seems to break a fundamental law of physics), but the research will be sure to continue at Berkeley Lab and other institutions to verify and replicate these results in search of a solid explanation for the phenomena observed.

The results of this research were recently published in the journal Science.

Source: Berkeley Lab

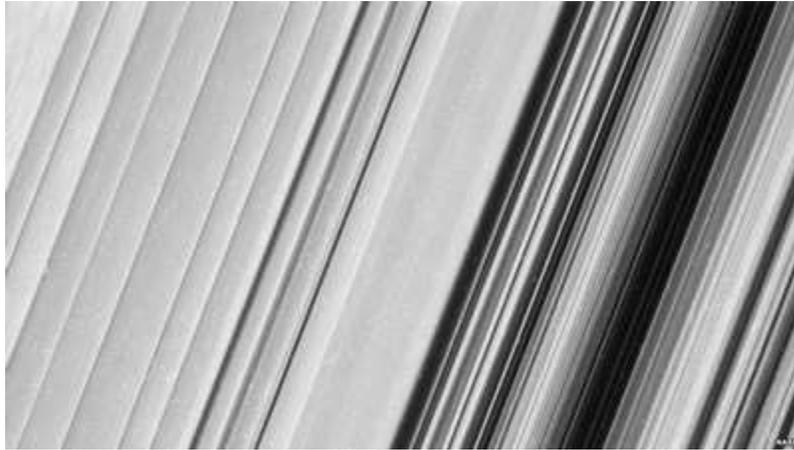
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#### **SATURN'S RINGS REVEALED IN 'UNPRECEDENTED' DETAIL**

VOA News, January 31, 2017 11:05 AM

<http://www.voanews.com/a/mht-saturns-rings-revealed-in-unprecedented-detail/3700088.html>

This image shows a region in Saturn's outer B ring. NASA's Cassini spacecraft viewed this area at a level of detail twice as high as it had ever been observed before. And from this view, it is clear that there are still finer details to uncover.



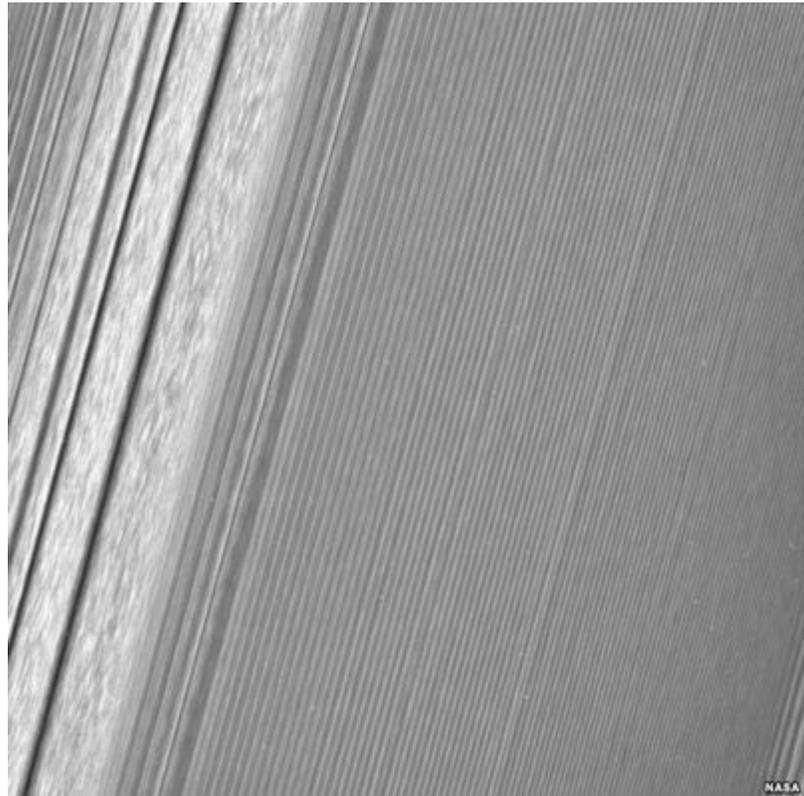
New images of Saturn's rings reveal the greatest detail yet of the planet's signature trait, including what NASA calls "moonlets" embedded in them. The images were taken by NASA's Cassini probe, which is in the final stages of its mission that includes "20 orbits that dive past the outer edge of the main ring system" before the spacecraft plunges into the planet itself.

"These close views represent the opening of an entirely new window onto Saturn's rings, and over the next few months we look forward to even more exciting data as we train our cameras on other parts of the rings closer to the planet," said Matthew Tiscareno, a Cassini scientist who studies Saturn's rings at the SETI Institute in Mountain View, California.

This Cassini image features a density wave in Saturn's A ring (at left) that lies around 134,500 km from Saturn. Density waves are accumulations of particles at certain distances from the planet.

The images are the closest ever taken of Saturn's rings and, according to NASA "resolve details as small as 550 meters, which is on the scale of Earth's tallest buildings."

The "ring-grazing" orbits began last November and will continue until the end of April, and in addition to spotting the moonlets, they have given greater clarity to other structures within the rings such as the so-called propeller-like formations.



NASA added that Cassini has also provided the "closest-ever" glimpses of two small moons, Daphnis and Pandora.

Cassini was launched in 1997 and arrived at Saturn in 2004. Since then, the probe has provided closeup looks at the planet's rings and moons as well as data about Saturn's magnetic field. Some of the highlights include finding a possible global ocean on the moon Enceladus as well as methane seas on the moon Titan.

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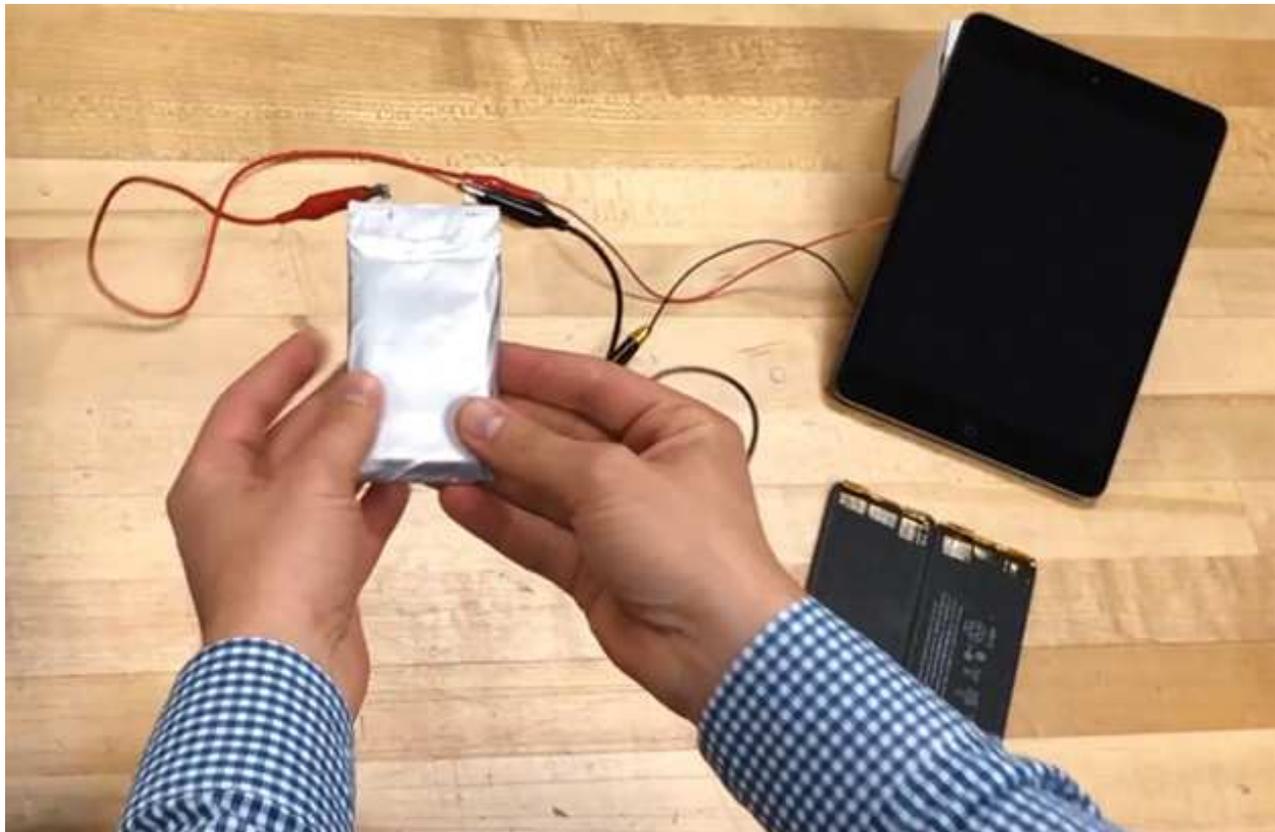
## RESEARCHER DEVELOPS COMPLETELY EXPLOSION-PROOF LITHIUM METAL BATTERY WITH 2X POWER OF LITHIUM ION

by Paul Lilly — Tuesday, January 31, 2017

Read more at <http://hothardware.com/news/researcher-develops-ionic-battery-2x-energy-density#tUWju56D6EYVw6qv.99>

It seems that we're constantly hearing about promising new battery technologies and eventually one of them will stick. Mike Zimmerman, a professor at Tufts University and founder of Ionic Materials, hopes that his remarkably resilient ionic battery technology will be the one that does. At a glance, his ionic battery technology appears to a legitimate shot at finally pushing the category forward in a significant way.

The reason scientists and researchers pay so much attention to battery design is because today's lithium-ion units have several downsides. As we saw recently with Samsung's Galaxy Note 7 recall, they can overheat and catch fire. Even when they work correctly, lithium-ion batteries degrade over a relatively short time as they go through recharge cycles, and they don't last all that long to begin with.



Mike Zimmerman's Ionic battery doesn't overheat or catch fire like lithium-ion batteries can.

If you were to take apart a lithium-ion battery, you'd find a positive electrode called the anode and a negatively charged electrode called the cathode. There's a thin sheet with microscopic pores called a separator that sits between the anode and cathode. Everything else is filled up with liquid, or electrolyte.

Charging the battery causes positively charged ions to flow through the liquid from the negative side to the positive side. As you use the battery, the ions flow in the opposite direction. It's a serviceable solution, but the electrolyte is extremely flammable and sensitive to being poked—they can explode when pierced. This is called thermal runaway, which is what the Galaxy Note 7's batteries experienced.

Zimmerman's ionic battery trades the flammable liquid for a piece of plastic film to serve as the electrolyte. It isn't prone to overheating and catching fire. You can even take a lighter to it and it still won't catch fire. The same goes for piercing it, cutting it, or otherwise destroying the battery in some other physical manner.

This is something Zimmerman has demonstrated by connecting an LED panel to his ionic battery. Even as he bends and cuts the battery, the LEDs remain lit. He's also done this while powering an iPad with his battery, as shown above.

That's not the only benefit. Unlike lithium-ion batteries, Zimmerman's ionic batteries use actual lithium-metal, which can store twice as much power. Lithium-ion batteries don't contain lithium-metal because they're even more prone to overheating and exploding than lithium-ion, but that risk is removed by Zimmerman swapping out the liquid electrolyte for a solid.

Will this be the next big thing in batteries? We don't know, though Zimmerman says that electronic companies have paid him a visit at his Ionic Materials facility in Woburn, MA. Zimmerman admits there is still a lot of reliability testing to be done and it will be difficult to scale his operations, but he's confident it can and will be accomplished.

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## 'LOST CONTINENT' FOUND UNDER MAURITIUS IN THE INDIAN OCEAN

- \* Continent contains rocks that are 3.6 billion years old
- \* Mineral zircon in beach sand provided clue to continent

By Juliet Perry, cnn, Updated 10:48 AM ET, Fri February 3, 2017

<http://www.cnn.com/2017/02/03/world/lost-continent-mauritius-trnd/index.html>

(CNN)Found -- one lost continent, hiding underneath a tropical holiday destination.

It might sound implausible, but deep at the bottom of the Indian Ocean, a research team, led by South Africa's University of the Witwatersrand, has found pieces of an ancient continent.

The lava-covered piece of continent, dubbed 'Mauritia,' was found under the popular island of Mauritius.

According to the report published this week in the journal Nature Communications, the piece of crust is left over from the breakup of Gondwanaland, a super-continent that existed more than 200 million years ago.

Containing rocks up to 3.6 billion years old, Gondwanaland split into what now are Africa, South America, Antarctica, India and Australia.



'Lost continent' found

Professor Lewis Ashwal, lead author of the paper, says there are a number of pieces of "undiscovered continent" of various sizes spread over the Indian Ocean, left over by the breakup.

"This breakup did not involve a simple splitting of the ancient super-continent of Gondwana," says Ashwal, but "a complex splintering took place with fragments of continental crust of variable sizes left adrift within the evolving Indian Ocean basin."

The team made the discovery by analyzing a mineral -- zircon -- found in rocks spewed up by lava during volcanic eruptions.

They said that remnants of the mineral were way too old to belong to Mauritius. "Mauritius is an island, and there is no rock older than 9 million years old on the island," says Ashwal. But by studying rocks on the island, they found zircons that were 3 billion years old.

The researchers say these findings corroborate a study done in 2013 that found traces of ancient zircons in beach sand. But critics said the mineral could have been blown in by the wind, or carried in by the scientists.

Ashwal says the fact the team found ancient zircons in rock "refutes any suggestion of wind-blown, wave-transported or pumice-rafted zircons."

The researchers say their results demonstrate, in no uncertain terms, "the existence of ancient continental crust beneath Mauritius."

That continent might be lost forever, but it's still leaving traces to remind us of its existence.

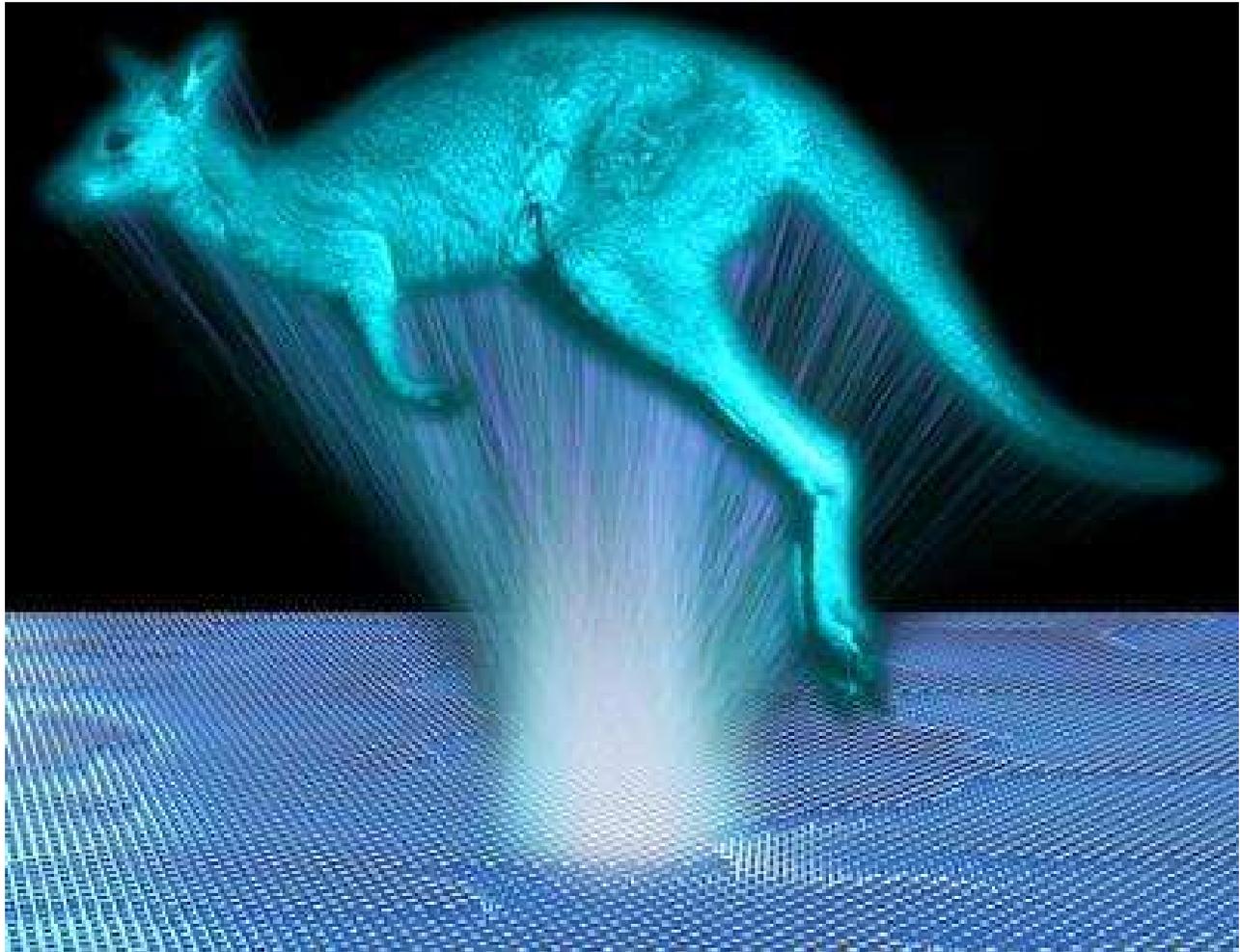
"The fact that we have found zircons of this age proves that there are much older crustal materials under Mauritius that could only have originated from a continent," said Ashwal.

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### HELP ME, OBI-WAN! NEW HOLOGRAM TECHNOLOGY MIMICS 'STAR WARS'

By Kacey Deamer, Live Science Staff Writer | January 31, 2017 12:03pm ET

<http://www.space.com/35517-star-wars-style-holograms-created.html>



Concept artwork of the holographic image that was created with the ANU invention. Credit: Lei Wang, ANU

Princess Leia's holographic plea in the classic film "Star Wars" inspired researchers to work toward a device that could project real-life sci-fi holograms. Now, the futuristic 3D imaging may be one step closer to reality.

A team of physicists at the Australian National University (ANU) invented a tiny device that creates the highest-quality holographic images ever achieved, the scientists said.

Study lead researcher Lei Wang, a Ph.D. student at the ANU Research School of Physics and Engineering, said he first learned about the concept of holographic imaging from the "Star Wars" movies. However, these futuristic-looking 3D images could be used for more practical ends than sending messages from a galaxy far, far away. [Photos: Microsoft's HoloLens Transforms Surroundings with Holographic Tech]

"While research in holography plays an important role in the development of futuristic displays and augmented reality devices, today we are working on many other applications, such as ultrathin and lightweight optical devices for cameras and satellites," Wang said in a statement.

Photographs and computer screens display information only in 2D, limiting views to flat images. Holograms, however, allow for the storage and reproduction of all information in 3D, and the technology relies on the ability to accurately manipulate light in three dimensions, the researchers said.

The ANU invention uses a new nanomaterial to create the 3D projections. Millions of tiny silicon pillars, each up to 500 times thinner than a human hair, act as pixel projectors to create the light-based 3D images, said co-lead researcher Sergey Kruk, a professor at the ANU Research School of Physics and Engineering.

"This new material is transparent, which means it loses minimal energy from the light, and it also does complex manipulations with light," Kruk said in the statement.

In lab tests, the device created tiny holograms ranging in size from 0.03 inches to 0.2 inches (0.75 millimeters to 5 mm) wide, at a distance of 0.4 inches (10 mm). While the technology is not yet ready to replace computer screens, with further research, the device could lead to new and better holographic technologies, the scientists said.

The device's ability to display the 3D holograms is only part of what makes it innovative, however, Wang said. Due to its miniature size, the invention could replace bulky camera components or help space missions by reducing the size and weight of optical systems, he said.

Details of the new study were published online Dec. 20 in the journal *Optica*.

Original article on Live Science.

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**SPACEX WILL HAVE TO FIX TURBOPUMPS FOR NEXT VERSION OF FALCON 9 TO QUALIFY IT FOR NASA MANNED FLIGHTS**

February 03, 2017

<http://www.nextbigfuture.com/2017/02/spacex-will-have-to-fix-turbopumps-for.html>

The Wall Street Journal indicates a forthcoming report from the US Government Accountability Office focuses most closely on issues with turbopumps in SpaceX's Falcon 9 rocket. The report has found a "pattern of problems" with the turbine blades within the turbopumps, which deliver rocket fuel into the combustion chamber of the Merlin rocket engine. Some of the components used in the turbopumps are prone to cracks, the government investigators say, and may require a redesign before NASA allows the Falcon 9 booster to be used for crewed flights. NASA has been briefed on the report's findings, and the agency's acting administrator, Robert Lightfoot, told the newspaper that he thinks "we know how to fix them."



A spokesman for SpaceX, John Taylor, said the company already has a plan in place to fix the potential cracking issue. "We have qualified our engines to be robust to turbine wheel cracks," Taylor said. "However, we are modifying the design to avoid them altogether. This will be part of the final design iteration on Falcon 9." This final variant of the Falcon 9

booster, named Block 5, is being designed for optimal safety and easier return for potential reuse. According to company founder Elon Musk, it could fly by the end of this year.

The new report also cites other problems with the commercial crew development efforts by SpaceX and Boeing. The latter company, for example, may be having difficulty with ensuring the reliability of its parachute systems to bring crews safely back to a land-based landing.

SpaceX and Boeing are struggling to meet NASA's mission requirement for a loss-of-crew probability of 1-in-270. NASA has previously acknowledged this issue, citing the challenge of dealing with micrometeoroid and orbital debris

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**BELL V-280 TILTROTOR BEING PREPARED FOR GROUND TESTING**

Feb 3, 2017 Tony Osborne | Aerospace Daily & Defense Report

[http://aviationweek.com/defense/bell-v-280-tiltrotor-being-prepared-ground-testing?NL=AW-05&Issue=AW-05\\_20170206\\_AW-](http://aviationweek.com/defense/bell-v-280-tiltrotor-being-prepared-ground-testing?NL=AW-05&Issue=AW-05_20170206_AW-)

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**AMARILLO, Texas—**Bell is preparing its prototype V-280 Valor next-generation tiltrotor for ground-vibration testing as it pushes to achieve a first flight by September of this year.

The company's entry for the U.S. Army's Joint Multi-Role Technology Demonstration (JMR-TD) program is now 93% complete and was due to be rolled out of the hangar for the vibration testing during February, Scott Allen, V-280 build team manager, told Aviation Week during a visit here Jan. 31.



#### Bell Helicopter

Teams had begun incrementally powering on aircraft systems during December, and were testing the engine starters during the visit. Test instrumentation also has been installed with vibration sensors placed

across the airframe and the body of the aircraft.

“It seems like there is a lot of time between now and September,” Allen said. “There is still a lot of testing to be done so that everything is performing as we planned.”

Recently the company finished work on a new test stand with funding support from the City of Amarillo's Economic Development Corporation. This will allow the company to perform high-power engine runs on the V-280 and the V-22 Osprey, which also is built at the site.

Allen noted that the method of 3D design, an approach also taken with Bell's commercial 505 and 525, meant that assembly had been a painless process. Systems like the auxiliary power unit, installed in a compartment in the upper fuselage and behind the main wing, had been installed in 15 min., Allen said.

The Valor—what Bell describes as a third-generation tiltrotor—uses the General Electric T64-419 engine from the CH-53 to drive the aircraft's prop-rotors. However, unlike existing tiltrotor aircraft, the engine itself does not tilt, but remains in a horizontal position driving the prop-rotor through a gearbox. This reduces complexity and the need to certify the engine to operate at different angles.

The prop rotor can be swiveled from 0 deg. at horizontal flight to 95 deg., just beyond the vertical to allow the aircraft to fly backwards out of a landing zone. The positioning of the engines reduces risk to the passengers, who exit from doors on the side of the aircraft.

Bell also has made use of advanced materials; the straight main wing makes use of a composite call IM10, which is not currently commercially available, while elements of the intakes have been produced using additive manufacturing.

The JMR-TD flight test program runs through 2019 and coincides with the study into FVL (Future Vertical Lift) Medium, also known as Capability Set 3, which seeks a common, medium-weight rotary-wing airframe for attack/utility and deep attack/penetration missions.

The helicopter manufacturers are pressing toward first flight in 2017 to prove that their respective configurations are technologically mature enough to enter an FVL acquisition program at Milestone B, the start of full-scale engineering and manufacturing development, instead of a three-year technology maturation phase that could delay service entry from the mid-2020s to early 2030s.

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## SCIENTISTS INVENT THE STRONGEST, LIGHTEST MATERIAL ON EARTH, AND IT'S 10X STRONGER THAN STEEL

By: [Nidhi Goyal](#) | February 6th, 2017

[http://www.industrytap.com/scientists-invent-strongest-lightest-material-earth-10-x-stronger-than-steel/40691?utm\\_source=Industry+Tap&utm\\_campaign=336a1bd124-Industry+Tap+Volume+3882+6+2017&utm\\_medium=email&utm\\_term=0\\_05d6224fe0-336a1bd124-44103165](http://www.industrytap.com/scientists-invent-strongest-lightest-material-earth-10-x-stronger-than-steel/40691?utm_source=Industry+Tap&utm_campaign=336a1bd124-Industry+Tap+Volume+3882+6+2017&utm_medium=email&utm_term=0_05d6224fe0-336a1bd124-44103165)

Researchers at MIT have created a spongy new super-material, which is one of the strongest lightweight materials known to man. This amazing material is lighter than the flimsiest plastic yet stronger than steel.

Graphene in its two-dimensional (2D) form is thought to be the strongest of all known materials. Although 2D materials are very strong, due to their thinness, they are not practical for making 3D materials. Researchers have explored the ways in which they can translate that two-dimensional strength into useful three-dimensional materials.

Scientists achieved this by compressing and fusing together small flakes of graphene (a two-dimensional form of carbon) into a vast, cobwebby network. The material formed not only has graphene's strength, but it also has the porous property of graphene.

The new material with its distinct geometry has a density of just five percent and the strength of about ten times that of steel.

MIT reports: "The new findings show that the crucial aspect of the new 3-D forms has more to do with their unusual geometrical configuration than with the material itself, which suggests that similar strong, lightweight materials could be made from a variety of materials by creating similar geometric features."

Markus Buehler, head of MIT's Department of Civil and Environmental Engineering (CEE), and the McAfee Professor of Engineering, said, "You can replace the material itself with

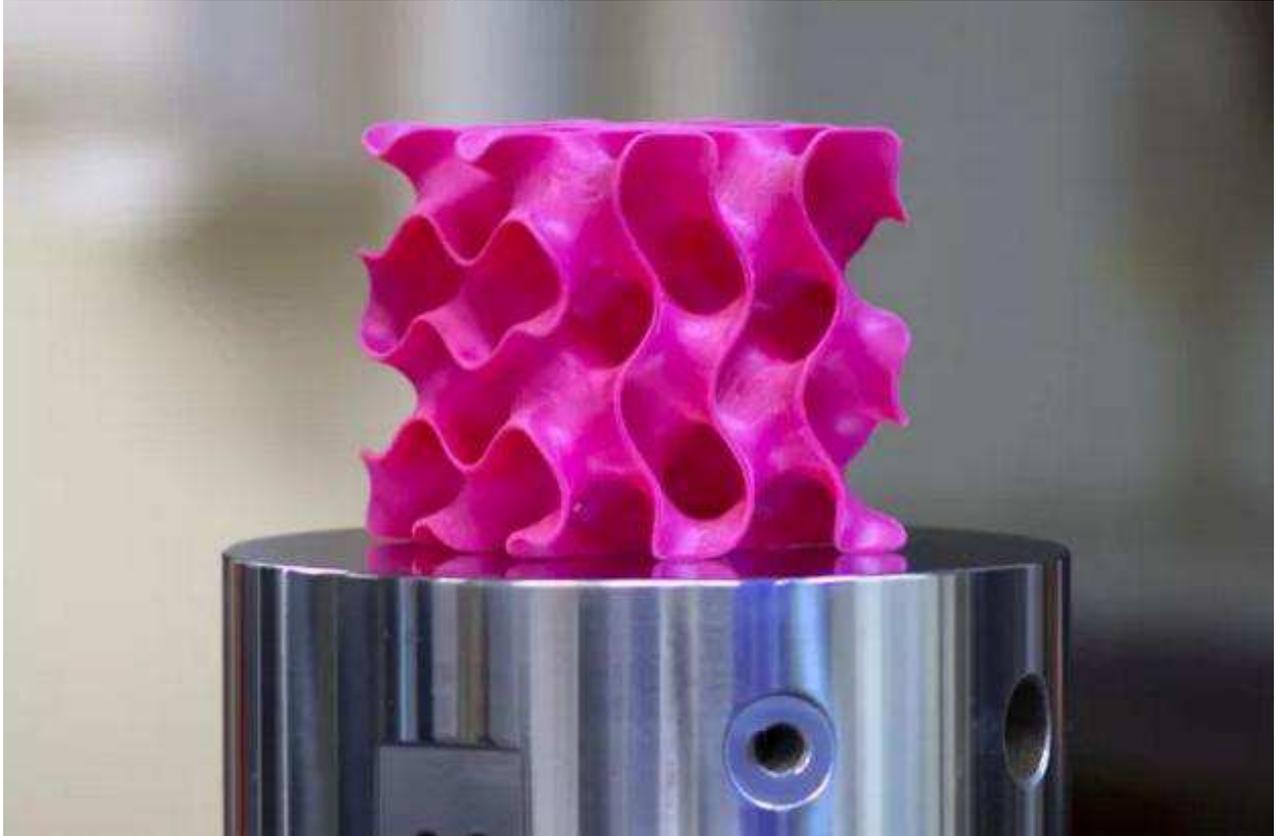


Image courtesy <http://news.mit.edu/>

anything. The geometry is the dominant factor. It's something that has the potential to transfer to many things."

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SCIENTISTS HAVE INVENTED PAPER THAT YOU CAN PRINT WITH LIGHT, ERASE WITH HEAT, AND REUSE 80 TIMES

WRITTEN BY [Akshat Rathi](#), February 03, 2017

<https://qz.com/902276/no-ink-needed-scientists-have-invented-a-paper-that-you-can-print-with-light-erase-with-heat-and-reuse-80-times/>

Soon to be a thing of the past? (Flickr/Tamaki Sono under CC-BY 2.0)



Nearly 1% of carbon emissions annually can be attributed to paper production, even though we recycle much of the paper we produce.

Yadong Yin has a solution. He and his colleagues at the University of California at Riverside have invented a type of paper that can be printed on using just light, erased by heating, and reused up to 80 times.

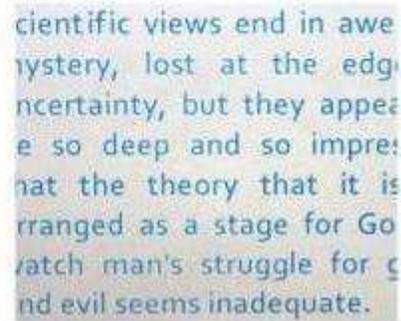
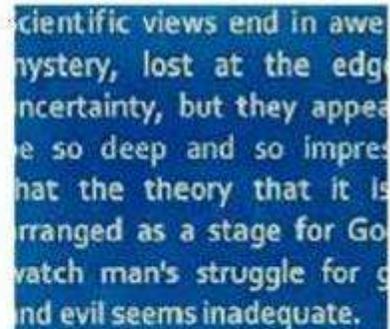
Yin created nanoparticles, which are a million times smaller than the thickness of human hair, with the dye Prussian blue, or its chemical analogues, and titanium oxide, which is commonly used in white wall paint. This mixture is then applied to normal paper.

(Wang et. al/ACS Nano)

When the coating is exposed to ultraviolet light, electrons from titanium oxide move to the dye in the nanoparticle. This addition of electrons makes the blue dye turn white. Focusing the ultraviolet light into shapes, you can print white words on a blue background—or blue words on a white background, which are easier to read.

If left alone, the paper reverts to its original state in five days. That process can be accelerated by heating the paper to 120 °C (250 °F) for 10 minutes.

Yin's paper is not the only ink-free paper that can be printed by light, but its use of cheap and easily available chemicals makes it more likely to become a commercial product. Of course, it will only take off if the printer used for the paper is cheap too. That's what Yin's team is working on next.



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From: "Jim Woosley" [Jimwoosley@aol.com](mailto:Jimwoosley@aol.com)

### 3D PRINTERS CREATE TOMORROW'S ROCKET ENGINES

Aero Defense Tech, Monday, 30 January 2017  
<http://www.aerodefensetech.com/component/content/article/26292?eid=376623248&bid=1651587>

Tri-D Dynamics LLC co-founders Deepak Atyam (left) and Alexander Finch work with components



and a diagram of one of their engines. (Purdue Research Foundation photo by Oren Darling)

Startup company Tri-D Dynamics LLC, a startup with ties to Purdue University, plans to use 3D printers as well as other additive manufacturing processes to make future rocket engines that show promise in being faster and less expensive to produce than traditional methods. The 3D printer would create small rocket engines for satellites.

Using traditional production methods, the same engines could take three to four months to produce, rather than days. The plan is for the launch vehicles to employ clusters of the 3D-printed engines positioned on the vehicle to lift the payload. The more engines used, the larger the payload capacity. The goal is to see the rockets launching once or twice a week – a minimum of 10 to 20 engines per week.

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From: "Chris Cowan" [cowanc1028@earthlink.net](mailto:cowanc1028@earthlink.net)

I'm thinking of Heinlein's "Time for the Stars," although that was about telepathic twins and loooong duration flight

#### IN NASA STUDY, TWIN ASTRONAUTS SHOW STRESSES OF SPACE TRAVEL

Early results from examinations of NASA's Scott and Mark Kelly reveal alterations to gene expression during spaceflight

By Alexandra Witze, Nature on January 27, 2017

[https://www.scientificamerican.com/article/in-nasa-study-twin-astronauts-show-stresses-of-space-travel/?WT.mc\\_id=SA WR 20170201](https://www.scientificamerican.com/article/in-nasa-study-twin-astronauts-show-stresses-of-space-travel/?WT.mc_id=SA_WR_20170201)



**NASA astronaut Scott Kelly (right) spent a year aboard the International Space Station without his twin brother, Mark, who is also an astronaut. Credit: Robert Markowitz NASA**

**Preliminary results are in from NASA's unprecedented twin study — a detailed probe of the genetic differences between astronaut Scott Kelly, who spent nearly a consecutive year in space, and his identical twin Mark. Measurements taken before, during and after Scott Kelly's mission reveal changes in gene expression, DNA methylation and other biological markers that are likely attributable to his time in orbit.**

**From the lengths of the twins' chromosomes to the microbiomes in their guts, "almost everyone is reporting that we see differences", says Christopher Mason, a geneticist at Weill Cornell Medical College in New York City. He and other project scientists reported the early results on 26 January in Galveston, Texas, at a meeting of scientists working in NASA's Human Research Program. "The data are so fresh that some of them are still coming off the sequencing machines," Mason says.**

**The challenge now is to untangle how many of the observed changes are specific to the physical demands of spaceflight — and how many might be simply due to natural variations. And because the Kelly twins are just two people, the results may not be generalizable to others.**

#### **SPACE CASE**

**Still, the work is some of the most detailed molecular profiling ever done, involving some of the most physically demanding environments. "The greatest importance of the study is to show that we can do it," says team member Andrew Feinberg, a geneticist at Johns Hopkins University in Baltimore, Maryland. "I don't think people realized it would be so easy todo genomics on astronauts in space."**

**Scott Kelly spent 340 days in space in 2015-2016, giving him a lifetime total of 520 days. Mark Kelly, also an astronaut, had previously flown in space for a total of 54 days over four space-shuttle missions between 2001 and 2011.**

**Because they have the same genome and similar life experiences, NASA arranged to have blood and other biological samples taken from the men to try and observe biological changes brought about by long-duration spaceflight.**

**DNA methylation — the reversible addition of a chemical marker that can affect gene expression — decreased in Scott during flight and increased in Mark over the same period, Feinberg says. Levels for both men returned close to pre-flight levels after Scott came back to Earth. What this means isn't yet clear, Feinberg says.**

**Mason's team also reported changes in gene-expression signatures between the twins. Such changes happen in earthbound people all the time, associated with environmental shifts such as changes in diet and sleep habits. But the changes in Scott seemed to be larger than normal — perhaps due to the stress of eating freeze dried food and trying to sleep while floating in space.**

#### **DATA SPLASHDOWN?**

Personalized medicine could play into NASA's plans for how to keep astronauts healthy during long-duration spaceflight, such as any future trips to Mars. For instance, the agency might want to use genetic tests to screen astronaut candidates for cancer susceptibility, says a 6 January report from the US National Academies of Science, Engineering and Medicine.

Actually publishing the results of the twin study will take some time, and the full data may never come out. Because of the detailed nature and sheer amount of the genetic information involved in the studies, the Kelly twins will review all information prior to being published, in order to avoid revealing sensitive data they may wish to keep private.

"We're working with a small number of highly identifiable people here," John Charles, head of NASA's human research programme, told the meeting.

This article is reproduced with permission and was first published on January 26, 2017.

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**ABSOLUTELY & TOTALLY POLITICALLY INCORRECT & AS FAR TO THE LEFT AS YOU CAN GO!**

From: "Tim Bolgeo" [tbolgeo@epbf.com](mailto:tbolgeo@epbf.com)

Thousands of Muslims take over NYC streets in protest, but folks notice something is seriously 'off'

February 2, 2017 | Carmine Sabia | [Print Article](#)

[http://www.bizpacreview.com/2017/02/02/thousands-muslims-take-nyc-streets-protest-folks-notice-something-seriously-off-443768?utm\\_source=BizPac+Review+Email+Newsletter&utm\\_campaign=7c4ccabd4d-EMAIL\\_CAMPAIGN\\_2017\\_02\\_03&utm\\_medium=email&utm\\_term=0\\_fbf9323fb3-7c4ccabd4d-32881293](http://www.bizpacreview.com/2017/02/02/thousands-muslims-take-nyc-streets-protest-folks-notice-something-seriously-off-443768?utm_source=BizPac+Review+Email+Newsletter&utm_campaign=7c4ccabd4d-EMAIL_CAMPAIGN_2017_02_03&utm_medium=email&utm_term=0_fbf9323fb3-7c4ccabd4d-32881293)

Thousands of Muslim protesters took to the streets of New York City on Thursday night in what they called the "bodega strike" to rally against President Donald Trump's temporary pause on immigration from seven majority Muslim nations picked by Obama.

The protest involved Yemeni bodega grocery store owners shutting their own business from noon to 8 p.m. as they gathered to demonstrate against the travel pause, according to a Facebook page for the protest.

"This shutdown of grocery stores and bodegas will be a public show of the vital role these grocers and their families play in New York's economic and social fabric," the event organizers wrote on the page.

More than 1,000 stores were scheduled to take part in the protest.

"[D]uring this period, grocery store owners will spend time with their families and loved ones to support each other; many of these families have been directly affected by the Ban," the protest organizers added on Facebook.

And the event had one more notable moment.

“The program will begin with the Muslim call for prayer and a public sundown prayer by Muslim rally participants,” they wrote.

Part of those prayers included a man on a megaphone shouting “Allahu Akbar,” which means “God is Great” in Arabic but is also a common chant heard during terrorists attacks.

There was a trove of pictures and video of the event that ended up on social media, but many started to notice something was off about them.

<SNIP>

There was ONLY a smattering of women clustered together, but the number were minimal enough for people not to notice them.

IN OTHER WORDS, THERE WERE ONLY A FEW WOMEN AT THE MUSLIM PROTEST IN NEW YORK CITY. HMMMM...I WONDER IF THE MUSLIM'S HAVE A PROBLEM WITH WOMEN PARTICIPATING IN THE WORK FORCE, ETC. UT

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From: "Chris Cowan" [cowanc1028@earthlink.net](mailto:cowanc1028@earthlink.net)

I have been thinking of Her, and the verses on her base by Emma Lazarus, a lot lately.



*The February 8th, 2017 Edition of THE REVENGE HUMP DAY!*

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