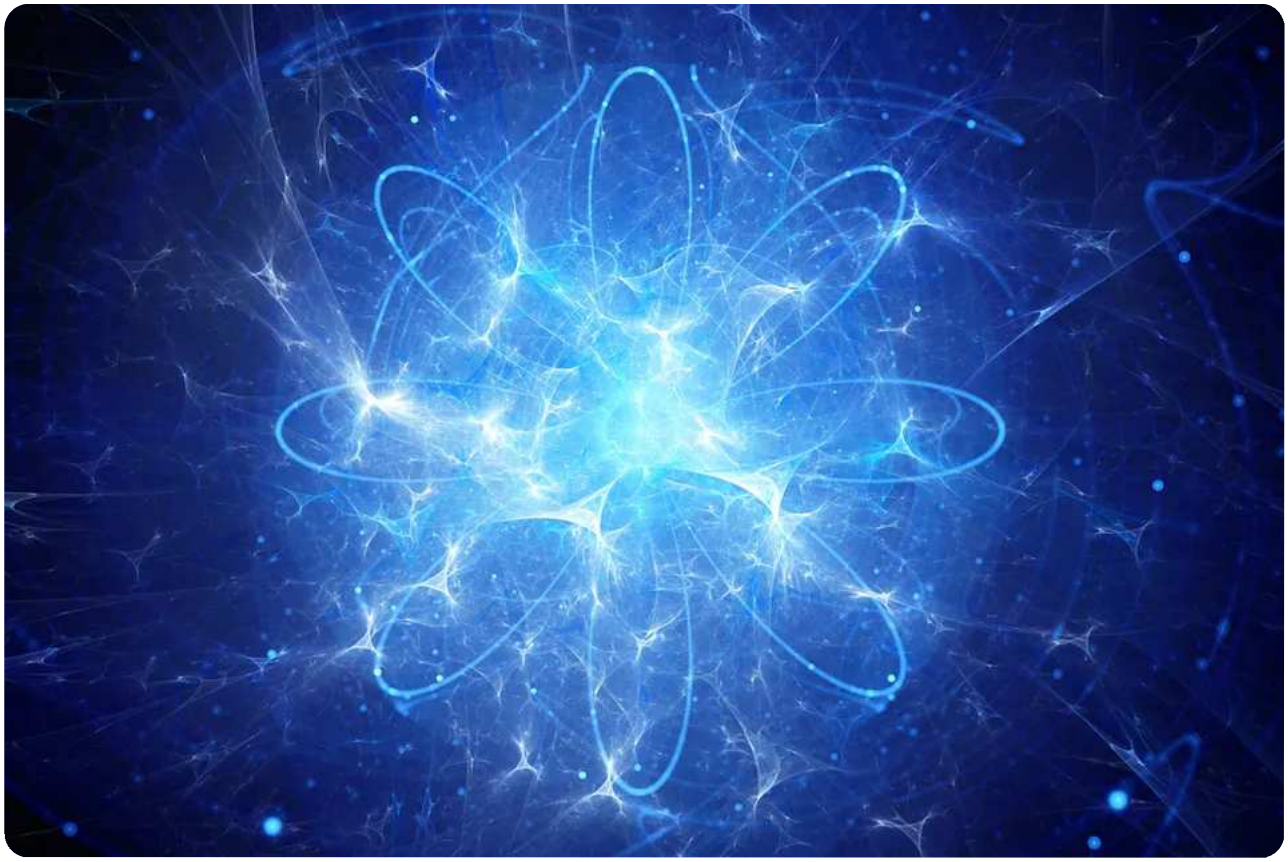
Why is no one Talking About LENR Cold Fusion?

Edgy Universe
Mar 29, 2017 at 11:59 am GMT
Science 5 min read



sakkmesterke / Shutterstock.com

What happened to the promise of cold fusion and its virtually limitless, clean energy? That sounds like what we all want, but maybe the results aren't there. Actually, they are, and go figure, we aren't all concerned with solving energy crises forever.

Once, this tech was branded with the name **Cold Fusion**. A more

appropriate term would be a **Low Energy Nuclear Reaction** or **LENR** for short. The idea is that a low-yield, low-temperature nuclear energy source can potentially bring limitless energy. If you've seen the movie **The Saint** starring Val Kilmer, you might have heard about it.

> Cold Fusion, or LENR, will be commercialized before we understand the science behind it.
>
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David J. Nagel, an electrical and computer engineering professor at George Washington University told the **Scientific American**, "LENR is real experimentally, and not understood theoretically. There are results that you just can't explain away. Whether it's cold fusion, low-energy nuclear reactions, or something else—the names are all over the place—we still don't know. But there's no doubt that you can trigger nuclear reactions using chemical energy."

Now, it is worth mentioning at this point that our good friend LENR has a bit of a spotty history and that we would be remiss if we didn't point and laugh at its past embarrassments.

It's Called LENR now

Our story begins with cold fusion, or at least, the idea of it. The term was first used in 1956 by physicist **Luis Alvarez**, but it really took off circa 1989, when physicists **Martin Fleischmann** and **Stanley Pons** claimed to have successfully harnessed the nuclear power in an electrolysis cell.

That announcement sent waves throughout the scientific world; waves that would soon hit the seawall of a skeptic scientific community. There they would be summarily debunked and branded

'junk science.' For a lot of the scientific community, that brand is still quite deserved.

But fear not, cold fusion fans, because there exists a slew of confirmed replications of the Fleischmann and Pons (P&E) effect throughout the 90's and early 2000s that fly in the face of the scientific community, proving that scientists are good at two things: doing the impossible, and arguing about it.

Along the way, the science got re-branded as LENR, and today we have two notable figures that are supposedly producing LENR reactors.

The Stars of Today's Show

There are two notable products that I wish we had more information on when talking about LENR.

First, we have the **SunCell** being produced by the company **Brilliant Light Power** (**BLP**). BLP's founder, physicist Randell L. Mills, claims to have discovered a theoretical type of hydrogen that he calls a "**Hydrino**". According to Mills, the Hydrino can be harnessed for a lot of power using a relatively small reactor, which is where the SunCell design comes in. To put this into scale for you, Mills claims that millions of watts can be derived from a 'volume no greater than a coffee cup'. It sounds great, but it is hard to verify.

While the SunCell may be a solution to some of our future energy problems, we can't confirm or deny it. BLP is incredibly secretive about their technology, and everything related to Hydrinos is patented so as to preclude anyone else even doing research on the elusive type of hydrogen molecule. BLP has collected $110 million USD from investors to work on harnessing hydrinos.

Our second notable generator is the E-cat, which was designed by **Andrea Rossi** with **Leonardo Corp.** According to Rossi, a tabletop reactor could put out millions of watts, but we have yet to see a public test of his designs. To their credit, Leonardo Corp. has issued public statements about bringing in a third party to verify their testing, but the need for this alone is sketchy and doesn't exactly inspire confidence from the world at large.

Which is kind of the problem with LENR technologies. The idea is old relative to its lack of success, making it a bit of a commercial landmine. That said, there is no shortage of investment in the idea, which is probably due to the potential benefit of the technology.

But with LENR's potential contribution to the whole of humanity, and the speed with which scientists have been able to produce it on a commercial basis, the whole thing stinks of conspiracy.

The scientific community is at odds, the stakes are high, and there are even possible leaks of government involvement hidden within the infamous **Podesta** emails hosted on **Wikileaks**. What kind of involvement could the government have? To enhance or to hinder?

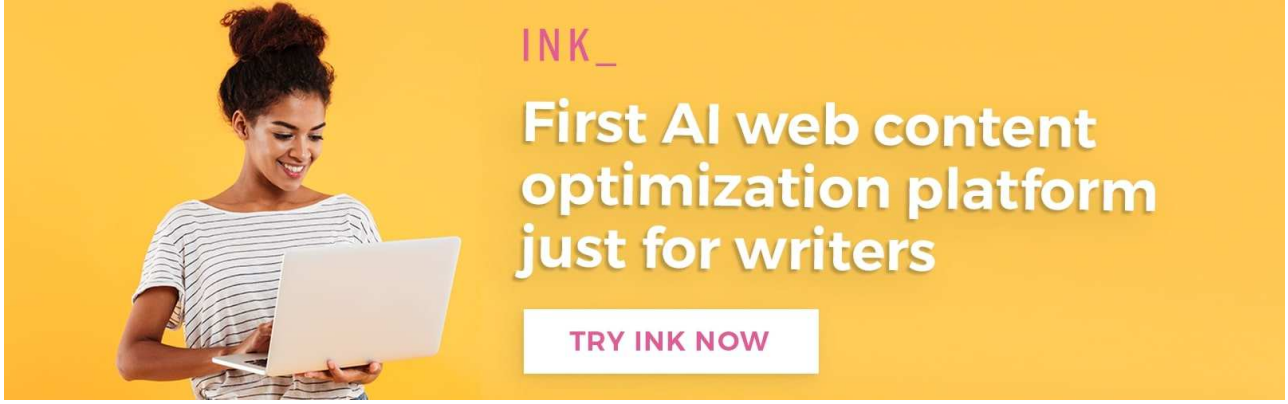


Conspiracy, as always, is unprovable, highly unlikely, and usually rather interesting until it's not.

But the specter of conspiracy is exacerbated by the fact that LENR-like reactions work in experiments, but not necessarily in theory. This would seem to throw a monkey wrench into the scientific method. But David Nagel asserts that, "LENR might be commercialized well ahead of its understanding, as were X-rays."

At the end of the day, I think it behooves us to pay attention to Rossi's E-cat and BLP's SunCell. And if Nagel is correct, Cold Fusion will be commercialized and installed before anyone understands what happened.

If the oil and gas industry shows itself as an opponent to advances in LENR technology, an abrupt commercialization might be exactly what Cold Fusion needs.



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AlainCo
March 29 at 9:15 pm GMT

BLP lack of solid independent evidences .
There are clear evidences of LENR phenomenon, clear absence of any established theory (don't believes those who say else).
There are hundreds of peer reviewed papers supporting LENR reality, and the 4 critical papers not simply failing like most, but proposing an explanation for F&P results, have been refuted.
Most funny is that the two first paper by Lewis and Hansen are refuted by a competent experimentalist Wilson, in the 4th paper.
Wilson present his results, refuting by the way Hansen and Lewis for their incompetent claim, which is simply a slight correction… This correction can challenge some dubious results, but there is also clear heat burst by F&P that cannot be explained and are above chemistry.
The 3rd paper by Morrison is more problematic as it should never have been published are it is absurd, claiming absurd position for anyone competent in the domain of electrochemistry.
Charles Beaudette in "Excess Heat" explains that story, and if you don't trust his judgement, you can follow the huge bibliography contained in his book, unlike most competing train station books.
The cause of the ostracisation of the domain is now quite clear. F&P did basic mistake in particle measurement that physicist did not forgive, while physicists did basic mistake about calorimetry in the first 40 days of replications, (it required 1y for competent chemists)

that they did not challenge and hide by editor protection (Caltech/Nature) and curve bending(MIT/Mallove).
this is documented.
In Current science of 25 February 2015, a special section on LENR contain a peer reviewed (by non LENR reviewer) review of many LENR questions.
Michael McKubre of SRI did a quick article on the origin of that beliefs
"Cold fusion: comments on the state of scientific proof"
there is much more to do, like reading "the science of LENR" by Edmund Storms, "Cold Fusion for dummies" introduction…
Since the ostracisation have been installed , ruining the career of dissenters, the domaine attracted strong experimenter who have reproduced it, freethinkers with no career to lose, deluded people, dreamers, theory revolutionist, and conmen.
I've been fooled by two of them, and avoided cautiously to believes in half a dozen others, not talking of the free energy non LENR snake oil salesmen.
After that there is the usual disruptive revolution and business risk.
Today only credible companies I know about, claiming a reactor are Brillouin and Clean Planet, needing more confirmation, face to face , for an educated investor.
Industrial Heat beside a sad story, is working with serious labs and experimenters, like Dennis Letts… Some other actors are on the subject, with less budgets.
SKINR, ENEA, Navy NRL, SRI, soon Seashore Researsh (Robert Duncan TTU, CEES), Toyota/Technova, MHI,…
Educate yourself, stay skeptical in the scientific meaning (suspend your belief or disbelief until you have definitive evidences), and meet people face to face.
My own position, not shared by many, is that what the community need is basic science research, to get data on the phenomenon, so a theory can be built from data and not from speculation.

My preferred framework for theory analysis is the one of Edmund Storms presented, as what I consider only a sketch, in The Explanation of LENR.
Even if someone have a working reactor, without a real predicting theory, he will be vertaken in a few month by someone having good nanotech lab to understand what is happening in hydrogenated metal when LENR is observed.

Upvote (0) ▲ Reply



Alexander De Ridder
March 29 at 9:25 pm GMT

Hi Alain,
thank you for sharing your knowledge!
We'd love for you to consider contributing an article on your topic of expertise. You can email us at hello@edgylabs.com to discuss this!

Upvote (0) ▲ Reply



AdrianAshfield
March 30 at 1:26 pm GMT

"BLP lack of solid independent evidences ."
The academic world didn't accept P& F had found anomalous excess heat even though they had.
What makes you think the pseudo skeptics will accept any experiment from Mills?
Wait and see if he demonstrates a working prototype this Summer.
AA

Upvote (0) ▲ Reply



AlainCo
March 30 at 2:16 pm GMT

F&P was not accepted by academic, but replicated by hunddred of scientists and published, with different methods, many improvement in methods.

Mills and Rossi are not replicated.
For rossi there was hope around Parkhomov style of experiments, but each of the positive results is more or less questionable, and later improvements did not improve much the results.
Finally only PdD LENr is soundly proven beyond reasonable doubt, producing He4 and heat, plus negligible traces of radiations and transmutations.
NiH is supported by few independent scientists (Miley, Piantelli,Celani,Focardi/Rossi/Parkhomov), not really cross-replicated.
My guess is that once we understand PdD, making NiH, TiD/H, WD/H, or alloys, graphene, enzyms, would be possible, like we know how to make transistors from many material (IV, III-V, poly, organic…)…
This is a fragtion of a billion of total cost, but nobody dare to invest that…
In day I will call the Chinese bitcoin miners and propose them to work with Uni Tsinghua and Singapore silicon foundries… I'm desperate about the West.

Upvote (0) ▲ Reply



_Jim
April 09 at 12:45 am GMT

AlainCo, who cares if Mills is replicated? Ans: Academics whose precious QM stands to be decimated if Mills is replicated? I think not … the MARKETPLACE however does not care if the 'theory' is correct or the experiment is replicated, only if the product actually works, THAT is who Mills seeks to 'please', NOT the academics.

Upvote (0) ▲ Reply



maryyugo
March 30 at 4:21 pm GMT

If LENR produces useful excess heat and can be commercialized,

why should anyone care what skeptics or so-called pseudo-skeptics (an idiotic term) think? Scapegoating skeptics is an old and worthless tactic to promote crooks and con men like Defkalion and Rossi. As for Mills, he has been promising wonders for more than twenty years and has yet to provide a single credible experiment.

Upvote (0) ▲ Reply



Joe Martin
December 27 at 12:45 am GMT

BLP does not lack evidence, rather people like you refuse to read facts. You are a biased anti-truth blogger.

Upvote (0) ▲ Reply



Mats Lewan
March 29 at 10:10 pm GMT

Here's a light summary of the last few years in LENR, mostly focused on Andrea Rossi and his E-Cat, originally published in the Indian journal World Affairs in January 2017:
https://animpossibleinvention.com/2017/02/25/world-affairs-cold-fusion-an-impossible-invention/

Upvote (0) ▲ Reply



maryyugo
March 30 at 4:01 pm GMT

Rossi is a proven criminal with an extensive record of fraud and other felonies. He has NEVER accomplished or properly proven ANYTHING. His extensive history is reviewed in meticulous detail here:
http://newenergytimes.com/v2/sr/RossiECat/Andrea-Rossi-Energy-Catalyzer-Investigation-Index.shtml
http://newenergytimes.com/v2/sr/RossiECat/Andrea-Rossi-Energy-Catalyzer-Investigation-Index2.shtml
And in a less concise fashion here:

http://freeenergyscams.com/
And well… all over the internet. Rossi's story is nothing but decades of disasters and broken promises and crimes. Now, he's embroiled in a multi million dollar lawsuit with the only people who ever spent significant money on his clearly non working ecat.
Mats Lewan's book is a charming combination of travelogue and fiction. Mats is one of the people who gave Rossi his start by failing to require Rossi to calibrate his tests. Rossi has never calibrated a single test properly, has never exactly duplicated a test and has never had a test replicated by competent experts and that's all OK with Mats.

Upvote (0) ▲ Reply



Alexander De Ridder
April 01 at 1:23 am GMT

Hi Maryyugo,
please keep things civil. We welcome skeptics, but character assassinations are not welcome on Edgy Labs.
To make things simple:
OK: I disagree with xyz, because abc.
NOT OK: xyz is a **** and *****, because abc

Upvote (0) ▲ Reply



maryyugo
April 01 at 7:52 pm GMT

Don't edit my posts. Anyway, it matters little. The interest level here is so low, you only got 25 responses. When people still thought Rossi was not a crook, Forbes articles engendered hundreds. LENR is a dying field and rightly so.

Upvote (0) ▲ Reply



Alexander De Ridder
April 01 at 8:15 pm GMT

Your links were good, and give a balanced counter-view

useful for our audience to know about. Thanks for voicing your opinion, just we like to keep things civil. We hope you enjoy your blog. Have a nice day!

Upvote (0) ▲ Reply



BobRohner
April 12 at 9:12 pm GMT

Mary – I don't have a formal way of responding so please excuse this intrusion. I am Bob Rohner. While cruising around I noticed that a few years back you were discussing some of Ruby's context and made the assumption that I was the Dr. Bob she was talking about having attended some seminar. Just to set the record straight, I am not a Dr., I am a graduate mechanical engineer from Missouri School of Mines with a BS and have never stated otherwise. Further, I have never attended any seminar beyond a couple of trips to Tesla-tech with friends. My funding attempts were limited to a stab at Indiegogo, which was highly unsuccessful, with funds mostly coming from friends. Otherwise, my little company Rohner Group LLC is personally funded. Although John Rohner is my brother, and Heinz Klostermann is a friend, I have never been associated with either regarding research. If you look closely at Sabori and other scammers, you will see they are actually showing videos of my work and yes, Gary Wright (of shutdownrossi) did try to extort $10,000 from me. Enough of this for now. Perhaps we can talk more someday.

Rightfully, discussions of the Papp Engine has no place in the LENR except in a very convoluted manner. Your comments concerning Dr. Mike McKubre and his attention to this engine is severely misplaced. I demonstrated the cycling of a sealed Papp cylinder producing work with no heat build up which was in my estimation impossible. This

lead him to comment that 1) he knew I was honest and wouldn't distort the truth, and 2) that the cycle as described deserved to be funded and tested in a lab with proper equipment rather than the back of my machine shop. This comment was distorted by many including Wright and apparently you. As far as your "dumb" comment, not one naysayer has been able to discredit my observations nor those of the team that certified it's operation.

Upvote (0) ▲ Reply



Susan Herbert
July 21 at 6:20 am GMT

Rossi? Forget him. I posted a comment in a rush this morning but it was incorrrctly flagged as spam.
I hold the earliest good patent but not in my name. In the name of The Amrtican People. These guys? Missed something. They'll continue to miss it as long as they are consumed with the idea of profit and so money.
Wanna bet me one dollar? You say cold fusion doesn't happen but I bet it does? It is?
I'm not betting on them or their theory but upon myself and my own theory as I've already proven it's a law. I used TWO previously unknown behaviors in or rather of nature. One is…
I know how and why mag north moves as it does. Ahaha!, the College Of Royal Astronomers cannot have a woman and/or me exactly prove that women are CREATED equal so yeah, at leadt one of us is an actual natural born genius who achieved on her very own aka without the help of men. Men? Still deny women can be and are geniuses, that we weren't CREATED defective. God forbid liberty and sovereignty is the actuality of nature we are all created with the same human potential and that its up to us to realize it and in so

doing become self actualized.
They were STUNNED when I told them that I never wanted or needed their petmission. All I had to do?
Act!
Soooo Mary, wanna bet me $1? That cold fusion is and I have it?

Upvote (0) ▲ Reply



Oh No We've Won....
May 12 at 8:56 am GMT

Maryyugo goes from site to site making disparaging comments, for years and years. I think he's been identified.

Upvote (0) ▲ Reply



Timo Ylhäinen
July 11 at 5:02 am GMT

Character assassinations are proper, when they are factual.

Upvote (0) ▲ Reply



Alexander De Ridder
July 11 at 2:12 pm GMT

If you volunteer to pay for the staff to be the judge of each case, then I will be inclined to agree with you. Otherwise, we prefer to use our hard earned money toward better reporting.
If you just point out the flaws in arguments and claims, there is no need to assassinate anyone's character. It's a simple rule which protects readers from misinformation.
We sincerely appreciate your understanding and cooperation, and we appreciate everyone's vocal effort in sharing facts.

Upvote (0) ▲ Reply



Timo Ylhainen
July 13 at 7:58 am GMT

Sharing facts?
For me, it is really hard to understand, that someone, while sharing facts, promotes fraud and dishonesty.

Upvote (0) ▲ Reply



AdrianAshfield
March 29 at 10:37 pm GMT

Nothing new in the article but I'm always glad to see more people writing about LENR.
There were a few mistakes, like say Rossi's E-Cat can produce "millions of Watts."
The current version, the size of a match stick, puts out 20 Watts. Sure, you can bundle them together.
Alain, I think you are too pessimistic about both Rossi and BLP. By the way, you never sorted out my problem with joining lenr-forum.com but it looks like I would have been banned now anyway, I note most Rossi supporters have been while Dewey was allowed to blather for a year.

Upvote (0) ▲ Reply



AlainCo
March 30 at 8:26 am GMT

I'm very pessimistic, but for them, not for LENR.
In fact, inspired by Edmund Storms and JF Geneste, I realized that theory is the key.
Theory is the big problem of LENR. Having no theory made physicist deny evidences, as Thomas Kuhn explains well that anomalies are denied until a new theory works flawlessly.
Theory is also the problem because many theoreticians propose "new physics" to answer easily to the question, as easily as the physicist who deny the experiments.
theory is also the problems for experimentalists, as without a theory to test, you cannot design experiments, decide what is a replication, just a failure, a new test, a confirmation or a refutation of the

proposed theory.
It is also a problem if you have a theory because it prevent you to consider some results, to search some measurements, and even often when people fall in love with their theory, it push people to ignore colleagues and lab results.
Anyway, a theory is required, first for experimental design, and second for engineering.
If someone propose a LENR reactor that work, but without a predictive theory, someone could easily overtake him with a better technology once he have a theory
So best is not to try to make a reactor, but to understand the phenomenon, to investigate it at the nanometer scale. PdD wet and dry, is for me the easy safe bet, even if I estimate NiH could later be harnessed easily once we have a theory.
About LENR-Forum, it seems that for some, discussing of annoying evidences showing you have been fooled, is considered as harassment, and being banned after insults is unfair.
What shock me the most is that I've defended Rossi "plausible-deniability" with optimistic caution for years, and finally worst is confirmed. I hope the trial will close the file, but I doubt the cult will end after the hanging of it's leader.
Academic ostracism have succeeded in deterring most boring classical scientists, young blood, attracting too many toxic people, and worst among all, the one who believe in their own lies.
We need serious people at the helm.
We need modern nanotech lab technology, like the one used for accumulator and superconductor researsh.

Upvote (0) ▲ Reply



AdrianAshfield
March 30 at 1:19 pm GMT

Alain,
I said you were too pessimistic.

I don't agree that a theory is necessary for commercial LENR. There are lots of theories already. One may even be right. Have they helped any? They mostly sound too esoteric to be of immediate use. The best, probably the only way to get LENR accepted is the sale of working commercial units.
I asked for your help on joining lenr-forum when the problem of misallocation of my email address came up. I am not interested in the sheer volume of meaningless rancor and insults that I see there. I don't insult anybody unless they insult me first and I certainly don't make a habit of calling Rossi a fraud, conman and liar without MUCH better proof that anyone has yet seen, so visible on that forum. People like that have been responsible for the lack of funds to prove LENR one way of the other. Some at DOE have actually thwarted private investment for research in that area. I'm sure they were cheered by the pseudo skeptics.
AA.

Upvote (0) ▲ Reply



AlainCo
March 30 at 2:01 pm GMT

You raise interesting points, but comparing F&P with recent breakthrough "inventors" is not fair.
F&P experiment took more than 1 year to be properly replicated, but it was replicated, many different way, with much pain and unreliability, because it is material science not 8-ball. There is improvement in reliability, (ENEA improved to >60% success selecting cristallography surface states), but without good theory it is hard to advance.
I don't see any bullet-prof replication of Mills or Rossi, solid like Lonchampt replication, like Oriani , like McKubre, Storms,Miles, Srinivasan,Takahashi,Iwamura, Fralick,Biberian, and the hundreds of others of variable talents, …
It can change, and whatever the secrecy is popular among old-

school inventors, it will be good for inventors to prove publicly their work, and not like a stage magic show.
About theories, digging in that strange collection is difficult, and Edmund Storms in An Explanation of LENR, as earlier on the Science of LENR, does a fair classification of the categories of theories, and their respective problems. His own theory is fairly criticized, but i interpret that as simply the lack of a core of QM explanation, while he determines a playground for "least revolutionary theory".
If I had control over a 10Mn$/y budget I will simply work on PdD wet then dry cell, using nanoscience instruments, modern 3D microscopy, X-ray imaging and spectrography, to test if the playground of Storms is fruitful.
PS: hope your LENR-Forum access get back.

Upvote (0) ▲ Reply



AdrianAshfield
March 30 at 4:27 pm GMT

Alain,
" comparing F&P with recent breakthrough "inventors" is not fair."
Why not? Even though P & F have been replicated academia STILL doesn't accept it.
What chance would someone like Rossi have? Parkhomov and believe another has replicated the hot cat. Lugano showed it did produce excess heat although the amount is questioned.
Rossi can't describe how it works in detail without giving away his IP. As you know, the Patent Office makes it almost impossible for him to protect hs IP with patents.
Mills is having an outside company engineer and build a prototype of the SunCell. That too is scheduled for this Summer. You couldn't replicate it any faster than that.

I don’t know why you are so hung up on replication and peer reviewed papers. The skeptics will not believe it anyway (think P & F) and peer reviewed papers have come in for much justified scorn recently. Think of the garbage published about global warming.
Selling working commercial units is the only way.
DOE will not even look at LENR. A friend of mine told me he handed a peer reviewed paper to one of the scientists in the Office of Science and he let it fall to the ground. He wouldn’t even touch it.
I wrote a letter to Secretary Moniz, routed through the Director of the Office of Science to make sure it reached him.. I’m told it reached the “red” folder. No one has replied more than a year later.
No the lenr-forum still doesn’t work for me but thanks for trying.
AA

Upvote (0) ▲ Reply



Susan Herbert
July 21 at 6:30 am GMT

I have a theory!
I tested it too. And I didn’t use my already known observations to prove it nor did I invent something new or use math as proof as its not proof either.
Theory, you say?
Go check Lord Calvert’s as his is bad and all anybody ever checked is his math. Nobody ever tested his theory. The Earth does not weigh anything close to the numbers cited! Newton is correct re a mountain and so a range of mountains not yielding a great enough difference so you wouldn’t quantify the universal mean this way!
Mason & Dixons survey showed an error in one direction for

other reasoning. See Tennessee's Diamond Line surveyed by Peter Jefferson who is Thomas' father.

Upvote (0) ▲ Reply



Teepee
March 29 at 11:41 pm GMT

Suncell is not cold fusion. Dr Mills has said this repeatedly. Hydrino formation is a chemical process, nor nuclear. There is a ton of info released by BrLP so not sure why you said they are secretive. Two new presentations posted in last few weeks.

Upvote (0) ▲ Reply



doug marker
March 30 at 1:03 am GMT

Teepee,
An issue that cuts across what is LENR vs what is Hydrino is that for LENR there isn't a dominant theory to explain the efforts and effects. Some may consider the Widom & Larsen theory of LENR to be a workable explanation but there is no consensus.
So, it could be (I don't know) that they are the same, my own bias is that the two are different and success of each can be deployed in quite different ways. Also am currently biased towards Widom & Larsen for LENR theory.
Mills current demos and claims for 2017/2018 will surely make or break his claims.
Doug Marker

Upvote (0) ▲ Reply



maryyugo
March 30 at 4:22 pm GMT

No they won't. He's been doing the same smoke and mirrors crap for decades. What's different about what he's doing now?

Upvote (0) ▲ Reply

doug marker

March 30 at 12:31 am GMT

The link below is IMHO the best short summary of MIlls work and issues outside of Brett Holverstott's recent book on the topic. That IMHO is an outstanding work on its own.
This link adds some very well written comments on the Mills SunCell and how it is claimed to work plus it includes an equally well worded description of the conflict between Mills theories and the clash with Quantum Mechanics.
Take note of the work and role of MIT Prof Herman Haus. This role is crucial to the later Mills conclusions and the more recent claims for MIllsian Software.
It does seem that a LENR / SunCell etc: device now boils down to basic issues …
– Does it work ? (show us – if it works it can become a business – let businesses choose)
– Is it cost effective (How much per unit of energy output provided vs consumed)
– Is the device practical (Is a TOKAMAK a practical solution ?, a SunCell should be)
– How does it work (Useful to know for further exploitation & later possible inventions)
The original review is from Trends Journal & this excerpt is hosted at Mills BLP site:
http://brilliantlightpower.com/wp-content/uploads/pdf/SunCell-TrendsJournal-Winter2017-03-03.pdf
Doug Marker
Sydney Australia

Upvote (0) ▲ Reply

maryyugo
March 30 at 4:06 pm GMT

Mills has been hawking the same bullsh*t story for decades now. He promised kilowatts of net power about twenty years ago. He has

never had a proper independent test. His current demonstration consists of pouring giant amounts of electrical power into a very small space and going “Woooo!” when it makes a flash. It makes bright light– big surprise. Millions of investor dollars have been wasted on this work with nothing whatever tangible to show for it. There may be some decent research in very lower power LENR though I have yet to see convincing evidence but for sure, none of the claims for high power are remotely credible.
You can follow discussions about it here:
https://www.lenr-forum.com/forum/
Though most folks at this site are wildly optimistic. Or just Google Rossi and scam.
By the way, Doug Marker is a guy who vigorously defended the crooks at Defkalion until they went spectacularly and ignominiously belly up and he argued in favor of Rossi for several years as well. Obviously, he learned little from those whopping defeats.

Upvote (0) ▲ Reply



doug marker
March 31 at 9:19 pm GMT

Troll Alert! – yes Yugo you achieved your goal today !.
Mary Yugo, among several other aliases.
Banned from a multitude of forums due his penchant for attacking people rather than their points.
Fabricates issues (as he did just above) to provoke personal attacks as this helps his goal of disrupting reasonable discussion and analysis of LENR and concepts such as SunCell.
When Yugo /Hody / Potenza settles in somewhere, that forum goes downhill fast. Be assured that after a while it may implode due to the poisoned debate.
Forum owner, you have been warned.

Upvote (0) ▲ Reply



grumpy
March 30 at 6:36 am GMT

Studying this field is a fascinating view of sociology and "history of science in the making." It's a rare day when you know something that 70% of physicists are still in denial about. Denial movements are not limited to silly "Libertarians against climate change and govt carbon regulation". Brilliant minds have blind spots like everybody.
"It is difficult to get a man to understand something, when his salary depends upon his not understanding it!" :Upton Sinclair
The way we learn the history of science is backwards, starting with what we know now, and looking back with disdane on everyone who didn't get it. But science doesn't look that way when you are in the present, trying to discover the future. Science is often lead by engineers, doing their jobs and learning the patterns. The Steam Engine did more for Science than Science did for the Steam Engine. Thermodynamics emerged from building steam engines.
"A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it. Max Planck
In fact today we are at the stage predicted by Khun in "Structure of Scientific Revolutions" where the textbooks (Like Wiley's Nuclear Energy Encyclopaedia") talk about LENR and the professors still think it's bunk because it wasn't in THEIR textbooks. See Elizabeth Kolbert : "why facts don't change our minds".
If you have never experienced racism, sexism or bigotry, here's something that might help you feel what others experience. Walk into a room of physicists and start talking about cold fusion! They will shrink away- look at you sideways- avoid talking to you while their friends can observe them- and say "Oops, gotta run to a meeting" no matter what time it is. After experiencing this you will also have insight as to why there are very few papers published in top journals

like Nature or Science, and no funding from the String Theorists in charge of the DOE and NSF purse strings.

People are well adapted for village and band societies of the stone age and tribalism works for us even in the hallowed halls of the Science academy.

(In Nature's defense, they published a great paper in November by Mikio Fukuhara showing that our planet would be frozen without LENR and besides, we can have observed the neutrinos.)

Even more tangible, the new map from satelite data of Earth's core imaged from space with magnetic and gravity sensors? For the first time we can see the dynamo that makes Earth's magnetic field, imaged from space.

https://www.newscientist.com/article/2116536-molten-iron-river-discovered-speeding-beneath-russia-and-canada/

When I see giant vortexes, I see convection, and I naturally wonder what the heat source… Not fission, not plasma fusion, what's left?

It is hard to remember how primitive our understanding of physics was in 1989. We were not prepared for the Pons & Flieshmann results. A Bose Einstein condensate had not been seen. There were no high energy lasers, like the X-ray laser Dr. Hagelstein worked on. About a million things we do regularly today with MEMS and quasicrystals and coherent light were not dreamed of. Today we have the intellectual firepower to solve the puzzle about why LENR looks like fusion to a chemist- H goes in, He comes out with commensurate heat. But LENR looks nothing like fusion to a physicist, because the weak and wrong radiation is incompatible with known plasma fusion reaction chain.

Soon we will solve the physics and won't have people (rightfully) complaining about explanations that fail to conserve fermion numbers and such. Fortunately the work is cheap to do, so private industry is doing it quietly. Which is another reason the folks at ITER with 10 billion dollar budgets are quick to say there is nothing to see here.

I wish ITER well, but they promise no useful energy for 30 years, and the climate instability doesn't give us that much time. LENR has been

over-unity since 1989, a mile stone no “hot fusion” experiment has ever accomplished despite nearly 100 billion dollars spent worldwide. (Although some of that, like NIF, is really H-bomb work under a test-ban treaty, so progress on energy wasn’t really a goal, though occasionally they claim so when seeking continued funding.)

Upvote (0) ▲ Reply

AdrianAshfield
March 30 at 5:41 pm GMT

I don’t see ITER will ever be an economical solution.
Neither do I think there is anything unusual about the present climate. I would guess there is an even chance that it will start to cool in around 10 years. The sun currently going to sleep will help that.

Upvote (0) ▲ Reply

Broncobet
April 03 at 4:12 am GMT

Cold fusion is something less intelligent people believe in.

Upvote (0) ▲ Reply

Adrian Mihai Stratulat
March 30 at 8:38 am GMT

You forgot to mention a critical aspect: E-Cat was peer reviewed. It is called the Lugano Report:
http://www.elforsk.se/Global/Omv%C3%A4rld_system/filer/LuganoReportSubmit.pdf

Upvote (0) ▲ Reply

AlainCo
March 30 at 8:56 am GMT

it was not formally peer reviewed, and even Arxiv refused to publish it (not fair I agree).
However some peer review have been done afterward by the community.

It seems now established that emissivity used of the IR cam was wrong.
they used global average emissivity 0.7-0.4 (depending on temp) estimated from analysis of some powder (though are pure alumina), while the window emissivity should be used for IR cam, near 0.95..
First remarks were simply that the calibration was not done over the full temperature range as it is advised by all experts, and by IR cam manufacturer.
Basic colorimetry (1450C should be blinding yellow, not dark orange) should also have ruled out the claimed temperature, and this is more than surprising the many red flags (color, TC not melting, lack of calibration) were not considered.
MFMP replicated the IR measurement and confirmed this window emissivity.
After correction the COP is 1-1.5 inside the uncertainty, not accounting for the loss of trust becaus eof the general situation .
More information have leaked because of the trial in process with IH, and it seems the material was Durapot not Alumina, that rossi was present most of the time, countrary to the report.
This is among the reason I feel myself fooled , because I trusted this report, and now I have to call people for skepticims if not rejection.
This story is damaging the solid work of competent people like the Japanese researshers of Toyota or MHI, of Missouri SKINR, of Italian ENEA, of Navy NRL…
If Rossi have something that work, it is easy for him to show it, especially if it have the performance he claims.
I am beyond skepticism on him, but this is a personal opinion, based on mostly public data.
If you want to consider strange claims, it is required to make a due diligence yourself, face to face, hand on the devices, with the inventor out of the room.
If he refuses, get away quickly.

Upvote (0) ▲ Reply



Jeffrey Campbell
March 30 at 1:48 pm GMT

Stanford Research Institute in Menlo Park California recently published an interim report of their testing of the Brillouin Energy (Berkeley,CA) HHT , an LENR energy producing system. The tests took place over several months involving 5 different energy producing reactors all made by Brillouin. Testing showed all units with over unity energy production (more energy out then went in). The reactors could be turned on and off; turned up and down. Brillouin Energy is a leader in this field with a robust engineering program underway and a clear path to commercialization.

Upvote (0) ▲ Reply



AlainCo
March 30 at 3:25 pm GMT

Brillouin looks quite credible indeed.
The test done in SRI wall by Tanzella and al, is not strictly independent, but serious, and there is small signal since long raising trust.
LENR-Invest missioned Michael Halem for a test which was presented at ICCF20. It works, even if they need more cross checking to be 99.999 sure…
The result is scientifically a revolution (of awareness), but industrially it is opening a niche market.
Godes theory is interesting, but I think it need mixing with others (there is hard QM critics, like on all theories). Phenomenologically it seems productive.
Mizuno in Cleantech, Miley of Lenuco, Swartz/hagelstein of Nanortech, maybe Piantelli of Nichenergy, seems credible but at an earlier stage… Anyway without full understanding , the race may be surprising, with a late horse winning the cup.
Antropocene institute have proposed a report about LENR actors.

A bit too optimistic, but a good start
https://medium.com/@CapstreamX/a-new-energy-technology-race-between-europe-japan-and-the-us-that-could-save-us-from-climate-5583e18ccac3#.6f5bwwec2

Upvote (0) ▲ Reply

maryyugo
March 30 at 4:24 pm GMT

Brillouin will only be credible if they obtain proper independent testing. SRI and McKubre are far from independent of Brillouin and McKubre is extremely gullible, having paid considerable attention to stuff as dumb as the Papp “noble gas” engine.

Upvote (0) ▲ Reply

Valtrise
March 30 at 4:29 pm GMT

Ummm no mention of these guys brillouinenergy.com who has SRI verified data of overunity?

Upvote (0) ▲ Reply

doug marker
March 30 at 10:49 pm GMT

Their claims tend to be in the very low wattage range. Thus far their ‘boilers’ are more concept devices. Mike McKubre when running SRI worked to help them commercialise their design. BUT, today’s reality is they are still at very low levels of output and very low COP claims. They do appear to have a precise control mechanism. Do some digging on the energy they have achieved.
Doug Marker

Upvote (0) ▲ Reply

AlainCo
March 31 at 8:16 am GMT

Maturity is low, but potential is huge.
Brillouin system, as it seems predictable and replicable, may be

more than just a reactor with interesting COP at modest power, but a test bench, a lab-rat for a serious research.
As I am now convinced, the priority is on fundamental research , and it requires LENR that works reliably.
Pd(Ag)D like Edmund Storms showed with his electrolythic cell seems a reliable labrat for someone experienced.
Brillouin if as explained may be a good lab-rat too.
nanor by Swartz and hagelstein may be a good labrat too…
Maybe that is their plan, but I'm afraid they don't have the lab budge to investigate as it is done in nanoscience today.
Miley, Letts, have interesting setup, may be already working with Industrial Heat on basic research.
Iwamura and takahashi did a very serious job with thinh film permeation, but it seems they have short budget today.
Clean planet with Mizuno seems to target application liek Brillouin, while I would advise to exploit their technology for investigations.
I put much hope in "Dog Bone" E-cat inspired research a year ago, but give the current situation I don't take it as confirmed.
I don't exclude Randell Mills have a working phenomenon, and unlike many, I would value and respect if he only have a lab-scale effect. I would prefer that honestly stated than grandiose claims of energy revolution, which requires more confirmation than what he proposes.
I don't value much his theory, but it won't be the first time a breakthrough is done by someone believing in a crazy wrong theory. I just need more independent evidences.

Upvote (0) ▲ Reply



maryyugo
April 01 at 7:54 pm GMT

Everyone reading and planning a comment should be aware that the authors of this article may edit or your delete your post without prior

notice should you say anything negative about any of the people they seem to support. This means that there is no point whatsoever in engaging these authors in discourse.

Upvote (0) ▲ Reply



Brett
April 01 at 8:21 pm GMT

"we can't confirm or deny it. BLP is incredibly secretive about their technology," is a mischaracterization. I have found BLP to be extremely forthcoming both in the scientific literature and public disclosure on their website.

Upvote (0) ▲ Reply



Nick Walker
June 06 at 10:14 pm GMT

Patents don't stop you doing research. Either its secret or patented, can't be both (though you can patent something different to get people off the scent!)

Upvote (0) ▲ Reply



Yorkman99
July 05 at 9:06 pm GMT

If LENR is genuine why isn't a demonstration unit continuously running on a test site that is open to the public. When developers keep their prototypes secret then that spells fraud to me.

Upvote (0) ▲ Reply



Roger Roger
July 27 at 12:27 am GMT

If everyone wants to be happy why isn't there peace on earth

Upvote (0) ▲ Reply



Paul Maher
August 16 at 2:51 am GMT

Let's see some abrupt commercialization. I believe that there is product that could go into production tomorrow, so why isn't that the

case. Perhaps an Iraj Parchamazad inspired Zeolite hand warmer.

Upvote (0) ▲ Reply



Cold Fusion
August 23 at 9:19 am GMT

Whether its called cold fusion or LENR is out of the question. Its time someone should actually make a cold fusion reactor that actually produces energy and powers up machines. All that matters is that it works and that there's no harmful radiation. Scientists can argue all they want while making use of its energy.
Man first made us of fire without even knowing how it occurs.
And besides… fossil fuel should have been long obsolete.

Upvote (0) ▲ Reply



Bill Katakis
December 18 at 7:35 pm GMT

Here my friends is new and absolute proof that "cold fusion" was and is real. Two new NASA papers showing that they created nuclear reactions in deuterated metals. The method they used to deuterate the metals, and the energy they used are irrelevant to the claims of Pons and Fleischmann. What matters is that you deuterate the metal past 90% saturation, then hit it with any form of energy. Navy researchers called Pons and Fleischmann in 1989 and asked them how to do the experiment, and the Navy researches were involved in this work and patent by NASA. NASA has at least one other patent on this reaction, namely to reliably start and stop the reaction. Pons and Fleischmann, were right, honest, and dilligent researchers who were driven out of their work, while trying to tell the world they found a source of energy that was incredibly cheap and safe. They'll get a Nobel, but Fleischmann passed away. This is earth shaking , these links below. You can make a nuclear reaction happen in a test tube.
https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20170002584.pdf
low energy photon exposure of deuterated metals
https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20170002544.pdf

x ray exposure of deuterated metals
International patent application on the process, like 120
pages long.
http://e-catworld.com/wp-content/uploads/2017/09/2017.09.14-Published-Application-1663.0002PCT3.pdf

Upvote (0) ▲ Reply



James Feeney
May 18 at 3:46 am GMT

Have you all read about what happens when you inject Hydrogen into Uranium? It's very similar to the E Cat cold fusion thing, except you get all the energy out instantaneously (kaboom big time).. This was made into several small yield Nukes <.05KT. Project Hardtack. The main problem with the small nukes is that you couldn't predict exactly when they will go off. You have to Start injecting Hydrogen, and sit back on pins and needles and wait until the thing goes boom. It could take hours , Days, weeks, or even years before the thing goes pop. It was never very practical, but they did do several tests. Some were duds.
Another reason this technology is being suppressed, is because of a materials problem. If you load up Palladium (Or Nickle, or Uranium) with Deuterium, and it were to be successful, then what happens if you load Palladium with Deuterium, surround the small Palladium ball with high explosives, and surround the whole thing with a dense strong casing (Steel). Then blow the high explosives, and implode the Palladium ball with all that Deuterium in it's Chrystal lattus. This is a small t stage chemical to fusion device. Basically a Hydrogen Bomb without the fission bomb to light it off. The real problem here is all the necessary bomb making materials exists in every junk yard all over the world. Catalytic Converters are full of Palladium. 10% of water all over the world is Deuterium. All the necessary ingredients are readally available everywhere. Now that's scary. So they discourage experimentation in Cold Fusion by disinformation. The reality is that

it's very real, and the military knows all about this, and it has been reproduced in labs many times. A peaceful reactor would be nice, but it's sooo easy to pervert into a really nasty weapon.

Upvote (0) ▲ Reply



James Feeney
May 18 at 3:59 am GMT

Just had another idea. Why is the core of the Earth so hot? Hmmmm….. Maybe the Deuterium in the ocean being heavier than normal water, sinks to the bottom, and defuses through the bottom of the sea into the Earths crust, and down into the mantle. Then this dissolved Deuterium reaches the core. There it gets injected into the Iron Nickle core of the Earth at very high pressure. Where LENR occurs. It's like having a little Sun in the center of the Earth.

Upvote (0) ▲ Reply



Susan Herbert
July 20 at 4:32 pm GMT

LENR as you currrntly know it might be a dying field as debt fiat bills (money) and profit is about to drop dead. Benefit is not profit and this knowledge will brnegit us in ways none if you has envisioned. I know as…I filed a patent in early 2007 but formally, officially posted notice even eatlier, in 1999.
I used our courts as I took on the manner in which we patent knowledge not tech and the fact that the ppl who are the US are mentally ill as they are now patenting law of nature and how those laws interact and apply.
I patented ALL of this – ehatever is correct 😀 – in the name of The People.
When you discover ehwh I know as I'm about to publish again you'll want to blame somebody for your suffering. In American law and according to it "blame" that is nothing more or less than the placement of judgement values is not to be found; we instead find fault and assign guilt. So look in a mirror if you know anything

truthful about mirmirr sna the behavior of light as…
All over Earth I waw turned away and rejected or ignored sna drnited outright as this person could not be CREATED equal with the same human potential as you that she then fully realized until she became ehwhol self actualized. This person couldn't be a woman, this person couldn't be righteous and finally this person couldn't be me, Susan exactly. Why?
The nature of condtitutional authority baby!, as my commission is derived from the exactly named Creator and came into existence with existence itself meaning life not paper or math is the proof.
As I know you NEVER use your already known observations to then prove your theory is a law of nature? That you must point to a behavior of nature that we do not yet comprehend and then prefict its behavior and if nsture follows suit only then id yid your theory a law of nature? Sorry fellas as I've defeated you in the race to the patent office, SCOTUS, The Vatican Court AND The Court Of Royal Astronomers even if the imposters refuse to let me appear in person: I know how and why magnetic North moves, I know something about nuclear chain reactions and I know something about humans; I'll use all three to absolutely prove my case and in so doing that my THEORY OF INTRINSICITY is a law of nature in The International Criminal Court. Or 60Minutes. Whoever volunteers first, lol.
Here's a freebie as everything is free but there's always a cost: Lord Calvert and all after him are incorrect. Calvert's theory is bad. All you ever did? Check his math not prove or disprove his theory. Newton, Jefferson, Geodel, Einstein, Hugh Everett, Ray Morton and I are correct as this is about the nature of time and conciousness; it's about absolutes versus wholes. Jefferson discerned the uuiversal mean that eluded Newton. He first published the same year as Calvert and later published on the Cpngressional Record but in his lifetime he never came to know that he could not fix a clock that was never broken OR designed poorly as we did not begin tracking mag north until 1830, four years after his death so I, Susan, resolved the unification of

Quantum Mechanics and Relativity. Like Einstein I did not actually eclipse anybody as in blot them out but instead
addd my illumination to theirs thereby increasing the brilliance of the truth of our enlightenment as Americans do not stand upon the shoulders of giants but shoulder to shoulder with giants as we ourselves are giants.
You have just been served!

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