



### **SUPPORTING EVIDENCE**

**United States Patent Application 20,110,255,645**

**Andrea Rossi "journal-of-nuclear-physics"**

<http://www.journal-of-nuclear-physics.com/>

**Ecat.com**

*NASA's Low Energy Nuclear Reactions (LENR) Technology Video Clip Uploaded.*

*A two-minute non-technical video clip on LENRs has been uploaded to the NASA technology gateway website featuring Joseph Zawodny.*

<http://technologygateway.nasa.gov/media/CC/lenr/lenr.html>

<http://coldfusion3.com/blog/nasa-publicly-reveals-lenr-research>

Widom-Larsen Theory Simplified.

<http://newenergytimes.com/v2/news/2010/35/SR35913widomlarsen.shtml>

Zawodny, Joseph. M. and Krivit, S.B., "Widom-Larsen Theory: Possible Explanation of LENR," Nuclear Energy Encyclopedia:

<http://newenergytimes.com/v2/books/2011Wiley/2011Wiley.shtml>

Steven B. Krivit, Editor-in-Chief, Jay H. Lehr, Series Editor, John Wiley & Sons, 978-0-470-89439-2 (Aug. 2011)

### **References Domestic Unit**

<http://ecatnews.com/?p=1830>

<http://www.journal-of-nuclearphysics.com/?p=563&cpage=7#comment-156211%20http://>

<http://coldfusion3.com/blog/major-usnewspaper-covers-andrea-rossi-cold-fusion>

<http://energycatalyzer3.com/news/top-italian-scientist-claims-to-have-achieved-nickel-hydrogen-cold-fusion>

### **NASA - RELEASE 12 JAN 2012**

<http://ecatnews.com/?p=1830>><http://ecatnews.com/?p=1830>

Prof. Focardi - This is an energy revolution

<http://www.youtube.com/v/2cOEHQmnG-I&autoplay=1>

Mats Lewan, reporter at NyTeknik after the E-cat demo

<http://www.youtube.com/v/JWoaJ5NEj-w&autoplay=1>

October 28 2011 Test of the 1 MW E-Cat Cold Fusion Device by Andrea Rossi.mpg

<http://www.youtube.com/v/uFijb2UhzqY&autoplay=1>

See the E-cat run in self-sustained mode

<http://www.youtube.com/v/gNhQlufkdL4&autoplay=1>

<http://scienceblogs.com/startswithabang/2011/12/05/the-nuclear-physics-of-why-we/>

### **Independent Proof**

There is a "Independent Report by Kullander" and the famous Rossi-Focardi Paper". Here is independent evidence supporting the reality of the Dr. Andrea Rossi's E-Cat Cold Fusion technology. The report is by Sven Kullander the Chairman of the Science Academy of Sweden and Professor Emeritus of the University of Uppsala (Sweden); Hanno Essen is Prof. of Nuclear Engineering at the University of Stockholm (Sweden). These gentlemen are experts in their field, and have reviewed the data as an independent peer review, lending credibility to the process.

This highlighted comment is by Sven Kullander the Chairman of the Science Academy of Sweden and Professor Emeritus of the University of Uppsala (Sweden); Hanno Essen is Prof. of Nuclear Engineering at the University of Stockholm (Sweden) and former chairman of the Swedish Skeptics Society. Their reputations are obviously on the line. To make such a statement they must have been very sure of what they observed.

Concerning the 28th October test of the 1Mw E-Cat device in Bologna as quoted:

*"The primary reason for the 28th October test of the 1Mw E-Cat device was a performance test for the Customer. The Customer controlled it. The public were invited I believe, to witness the test as further evidence of the veracity of the E-Cat technology. The public or any particular group of scientists/journalists did not primarily arrange the test for independent testing of the E-Cat device. The E-Cat was not yet fully protected by worldwide patents, and thus it seems quite*

*reasonable that the public would be excluded from various parts of this performance test. There is certainly no radiation coming from the device or any radioactive waste accumulated in the device. Andrea Rossi has confirmed this to me in writing. "*

Of many and numerous experiments and demonstrations of the E-Cat technology, including the 1Mw demonstration on the 28th October, 2011 in Bologna, these details of a test done on the 29th March 2011, prove the veracity of Andrea Rossi and the E-Cat technology because of:

The qualifications of the observers.

The clarity of their observations.

The clarity of documentation of their observations.

The independence of the observers.

I'm sure these figures are very conservative, since to make the initial sale of the 1MW heating system he ran it with NO POWER INPUT FOR 5 HOURS, continuously generating over 470Kw/hr.! This is a COP of infinity! Even so, COP (Coefficient of Performance) of 6 has never been produced anywhere other than with uranium to my knowledge (if natural radioactivity is not considered input power). Of course with uranium apart from being lethal and very dirty, a great deal of energy goes into creating it in the first place and thus it is an extremely dirty and expense fuel.

Please note: there is evidence that the E-Cat can be "toggled" between self-sustaining mode requiring no power input, and powered mode running with a COP of 6.0. What this means is a NET COP OF 12.0!

### **More References:**

#### **The second law of thermodynamics is still intact.**

[http://peswiki.com/index.php/News:October\\_28%2C\\_2011\\_Test\\_o](http://peswiki.com/index.php/News:October_28%2C_2011_Test_o)

#### **It did make some headlines.**

<http://ecat.com/news/cold-fusion-is-heating-up-in-mainstreammedia>

#### **HERE IS AN INTERVIEW OF THE USA COMPANY**

[http://www.nyteknik.se/nyheter/energi\\_miljo/energi/article3179019.ece](http://www.nyteknik.se/nyheter/energi_miljo/energi/article3179019.ece)

#### **He meets a USA governor - first USA press release**

<http://coldfusion3.com/blog/major-us-newspaper-covers-andrea-rossi-coldfusion>

Here is a clear, simple and accurate talk by Lewis Larsen, one of the inventors of the Widom Larsen LANR Theory. If you are interested in understanding how the

world is now going to change to clean green inexpensive endlessly available energy, have a listen.

<http://ecatnews.com/?p=1604>



### **video links**

<http://e-catsite.com/videos/>

<http://www.youtube.com/watch?v=7NuNNicWV6k&feature=related>

<http://www.youtube.com/watch?v=gNhQIufkdL4&feature=related>

good video with rossi e-cat steam output visual- around 7 min in

<http://ecat.com/ecat-videos/ecat-meets-andrea-rossi-in-bologna-october-6>

[http://www.youtube.com/watch?v=t9I\\_CJti-RU&feature=related](http://www.youtube.com/watch?v=t9I_CJti-RU&feature=related)

<http://www.youtube.com/watch?v=XxejzUCeSYo&feature=related>

Bloomberg TV

<http://ecat.com/ecat-videos/bloomberg-tv-featured-andrea-rossi-on-national-tv>

TV news:

<http://www.cbsnews.com/video/watch/?id=4955212n>

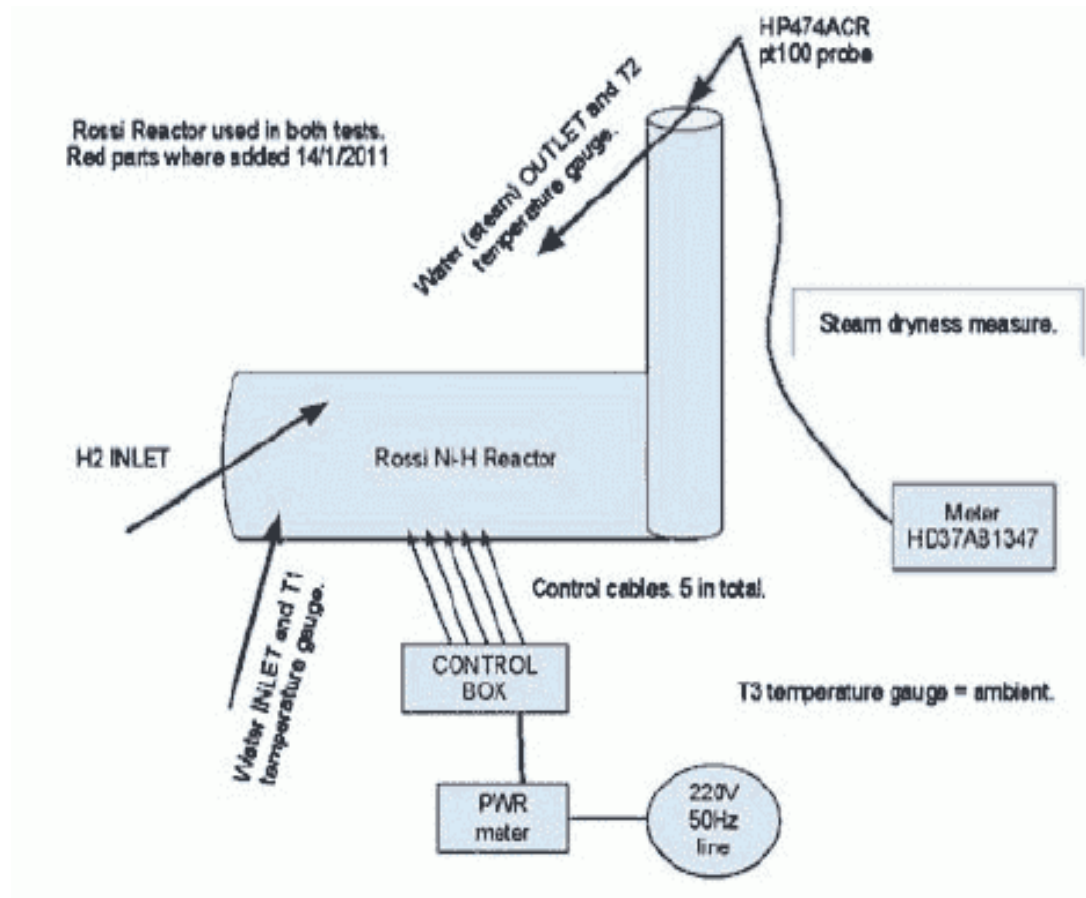
<http://www.youtube.com/watch?v=RP5cG-36Bag&feature=related>  
interview with sterling allan

<http://www.youtube.com/watch?v=YN10SUdktTE&feature=related>  
1 MW unti

<http://www.youtube.com/watch?v=t19C-7WJPTM&feature=related>  
stering alan test Oct 28 2011

<http://www.youtube.com/watch?v=5osJcNalags&feature=related>

<http://www.youtube.com/watch?v=kz9bukWbCCU&feature=related>  
blomberg news



**Figure 2.** Schematic of the Rossi reactor. (Courtesy of Dr. Levi.)

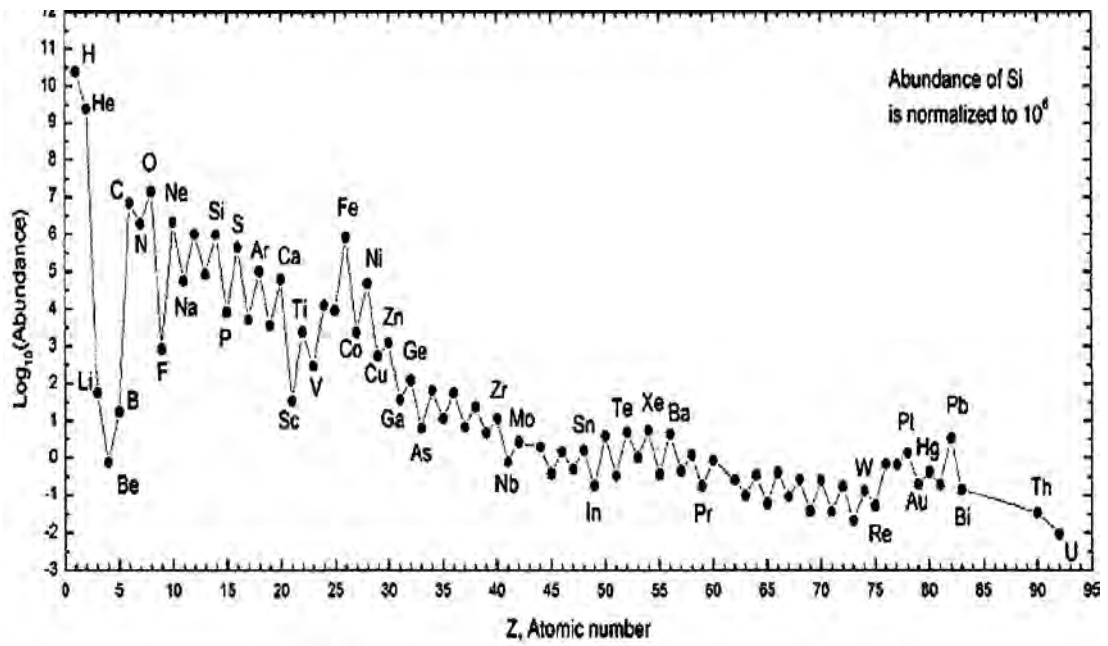
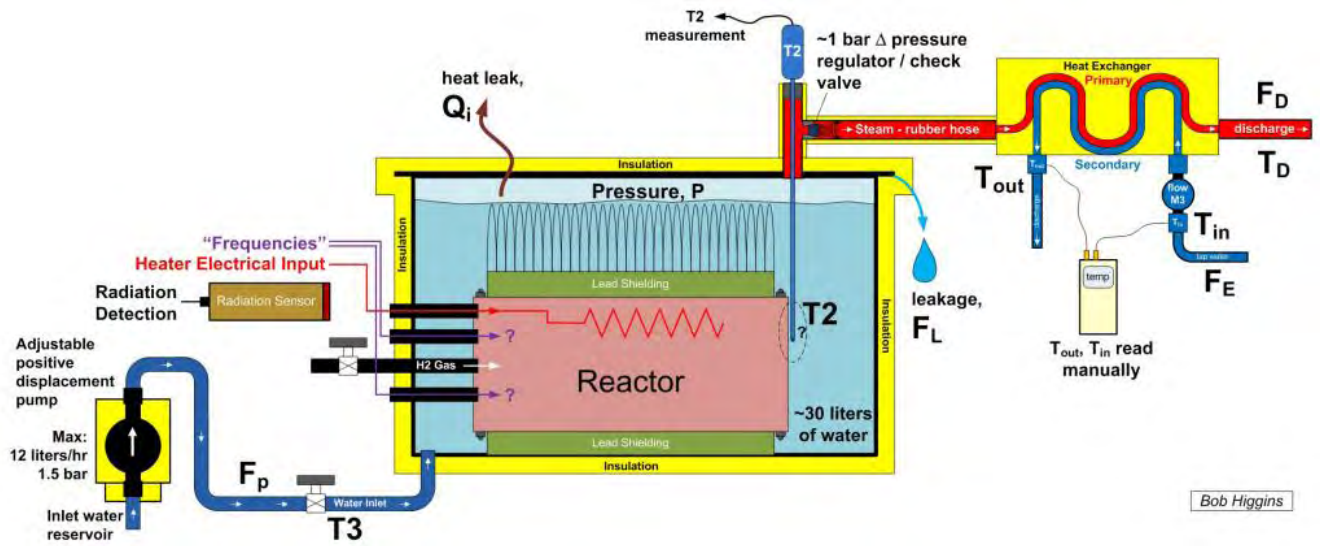
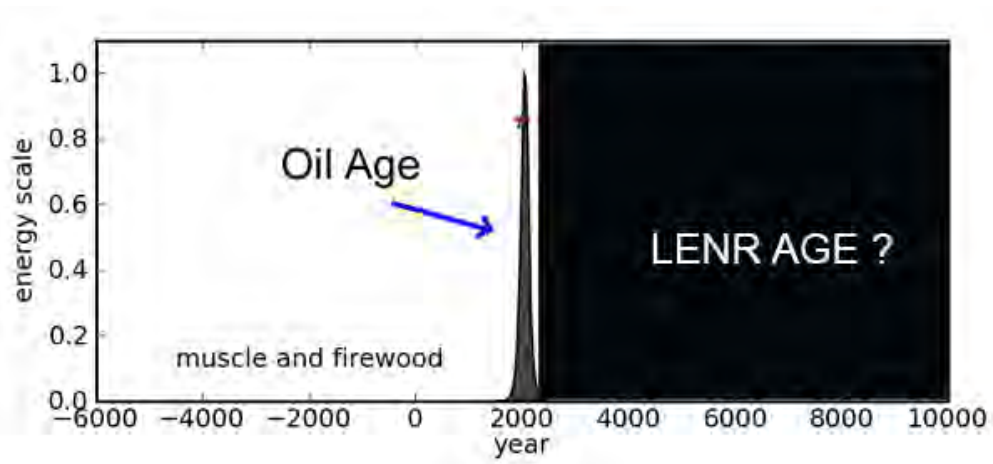


Figure 1.1: Solar system abundances of the elements.





	Pollution Free	Very Safe	In-exhaustible	Unlimited	Low Fuel Cost	Low Reactor Cost	Compact	Locate Anywhere	Working 24/7 (4)	Ready Now
<b>Fossil Fuel</b>						✓	✓	✓	✓	✓
<b>Hydro-electric</b>	✓	✓	✓		✓	✓	✓			✓
<b>Wind</b>	✓	✓	✓		✓					✓
<b>Solar</b>	✓	✓	✓		✓					✓
<b>Uranium Fission</b>	(1)		✓	✓	✓		✓	(3)	✓	✓
<b>Plasma Fusion</b>	(2)		✓	✓	✓		✓	(3)	✓	
<b>E-Cat</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓





## **Meeting and Demo E-Cat Technology with Andrea Rossi**

**Bologna**

**24<sup>th</sup> Feb 2012**

### **REPORT BY WILLIAM DONOVAN and ROGER GREEN**

We first met Rossi at his office in the old town of Bologna city. We were joined by 2 scientists / engineers from India. The whole meeting and demo was filmed as a record of this very unique day

The meeting accomplished two things: one, it was a briefing for those not acquainted with the technology, and second, it answered questions that the attendees might have prior to the demonstration to save time, as Rossi stated he had to leave immediately after the tour of the factory and demo to travel to Rome.

We took two taxis to the factory, which was located in an industrial district of Bologna. Rossi then took us into a side room where two E-Cats were located, one hooked up to a feedwater pump that clicked about once a second, delivering water into the unit.

He then took out a clamp on ammeter, applying it to each conductor in sequence, showing that there was no current flow into the heaters. The reading on the digital ammeter remained at zero.

He then showed the results of the data logger running on a laptop PC connected to two temperature sensors, one inside the E-Cat, and another in a large barrel of water which was steaming. The steam temperature, according to the data logger, was 101 degrees Celsius. The logger showed a dip in the temperature, which Rossi explained as replacing water that had evaporated.

The E-Cat had been running for at least two hours in self-sustaining mode, with no power input to the unit itself.

A feed water pump was connected separately. We estimated the amount of steam produced at approximately 10 cubic centimeters per second. The feed water pump was sending only enough water into the generator to be boiled off as steam, and then this steam was condensing inside the barrel as a bubbler tube.

A quick calculation showed that the energy produced was less than the capacity of the generator at the time. However, it was energy with an infinite COP, with no input needed.

We then saw the industrial model that was built for a 1MW capacity inside (and outside) a 20 foot shipping container. Several units were removed from racks for re-work. Significant changes were made to the overall configuration of the commercial unit, most notably the increase of the number of active units, with some mounted on the roof of the container, more than doubling the count from 52 to 106. Also noted was the addition of an external control

console which contained power relays for switching the heaters on the individual elements, and a more sophisticated system for controlling the output in the form of a second console. External feedwater pumps were mounted on the exterior of the shipping container.

### Conclusion

The Rossi E-Cat appears stable in self-sustaining mode. For how long it can maintain this, is the big question at the moment. A recent spreadsheet analysis showed that the economics, despite the power costs, is still competitive with conventional fuels except for coal. This could change once we know the ratio of power input to self sustain mode.

Roger Green and William Donovan, Feb 29th, 2012



The e-cat was running in self-sustain mode when we arrived

Black phase Zero amps



Blue Phase Zero Amps

Witnessed by seven people present



Green phase Zero Amps



Test e-cat running in self sustain mode



Monitor used in test room



Calorimetry in e-cat test room

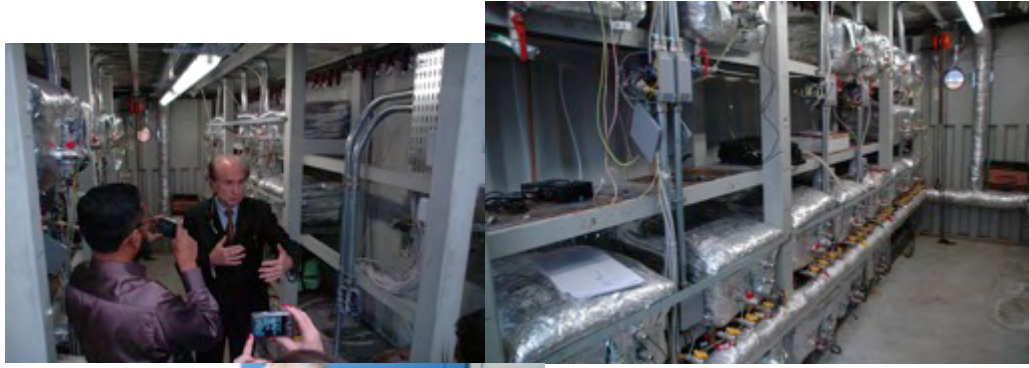


Rossi with the 1 MW









Rossi with the E-Cat built in security Black Box and monitor



Group photo with folks from India, Brazil , USA and Australia



Roger Green and Andrea Rossi



Bill Donovan (USA) inside the 1 MW E-cat



Bill with the test eCAT, he observed the ecat running in self sustain mode and checked all wires, inputs, pump feeds.



Rossi with Indian Scientists.



Roger Green and Andrea Rossi, Miami USA

[www.E-catAustralia.com](http://www.E-catAustralia.com)