

***What Caused **Not Two but Three** World Trade Center Skyscrapers to COMPLETELY Collapse on 9/11/2001?***

**Steven E. Jones, Ph.D.**

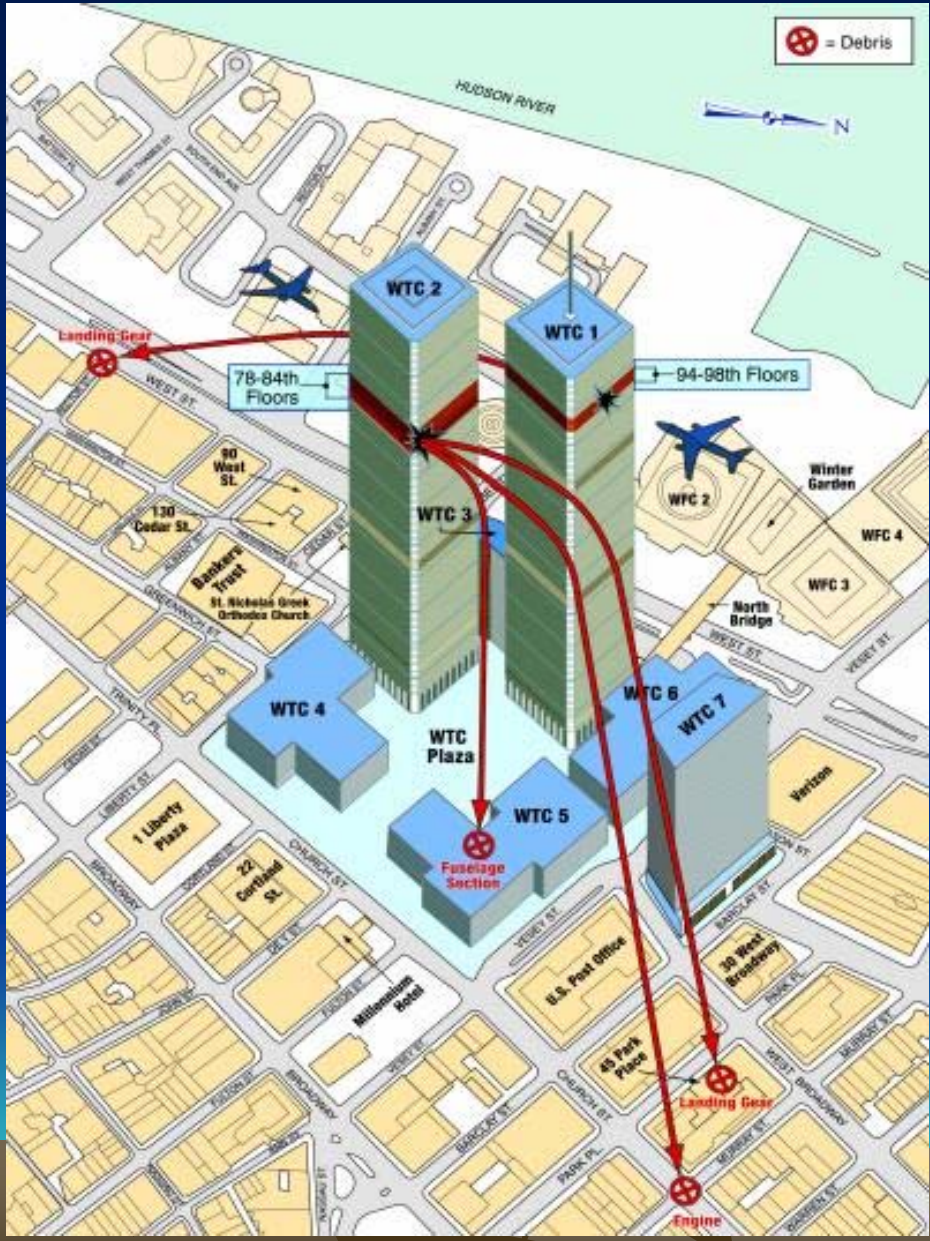
**Slides prepared for Physics Dept. Colloquium at Idaho State University, Sept. 1, 2006, updated 9/22**

**Thanks to: Robert Moore, Alex Floum, Jim Hoffman, David Ray Griffin, Kevin Ryan, Jim Fetzer, Derrick Grimmer, Brian Vasquez, Robert Stevens, Webster Tarpley, Michelle Jones and many others.**

**The author is responsible for views presented here (as usual)**



# 9/11 overview



# WTC7 collapse: near free-fall time and **complete**, just like controlled demolition using explosives



9-11 Commission **report failed to even mention collapse of WTC 7!**

NIST report **on WTC7 is long overdue, yet NIST refuses to release WTC 7 photos and videos (despite FOIA action)**

FEMA report: **“The specifics of the fires in WTC 7 and how they caused the building to collapse remain unknown at this time... the best hypothesis [fire then complete collapse] has only a **low probability of occurrence.**” “Further research, investigation, and analyses are needed to resolve this issue.”**

**For videos showing WTC7 collapse, go to: [wtc7.net](http://wtc7.net)**

**No “stacked-up” floors in either Tower (left).  
And where did the core columns go?  
(How to explain without explosives?)**

Right: what floors look like when they actually pancake (earthquake), for comparison.



**UNSOLVED MYSTERY: Molten metal at WTC (left)... Is it more like molten iron from Thermite (upper right)? Or more like pouring molten aluminum (bottom right, 2 photos)?**



- Thanks to Brian Vasquez & Michelle Jones for contributing here!

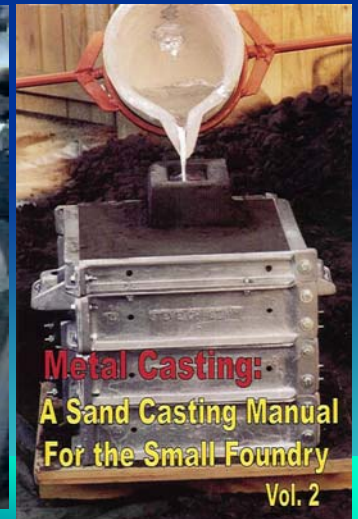


Fig. H-21 (left). NIST report [http://wtc.nist.gov/progress\\_report\\_june04/appendixh.pdf](http://wtc.nist.gov/progress_report_june04/appendixh.pdf), WTC2 same corner, within a few minutes of collapse



- Yellow-orange liquid material with white plume of “smoke” or ash

**Two independent videos show yellow-white liquid metal pouring out of the South Tower just prior to its collapse:**

**<http://video.google.com/videoplay?docid=-2991254740145858863&q=cameraplanet+9%2F11>**  
**and <http://video.google.com/videoplay?docid=-8564772103237441151&q=cameraplanet+9%2F11>**

**More:**

**<http://www.snowshoefilms.com/ftp2/hummux/molten%20metal%20clip%20BBm.mov>**



# Four possibilities\*:

1. Molten structural steel
2. Molten aluminum from the aircraft
3. Mix of above + office materials (plastic, wood, etc.), wallboard, carpet, etc.
4. **Molten metals (e.g., molten iron) produced by highly exothermic chemical reactions (e.g., aluminothermic reactions, or thermites)**

\* If there are any other serious possible explanations for the molten metal, let me know... I will explore all reasonable possibilities



**Residues in the WTC dust and solidified metal  
provide significant clues regarding origins**

But first we will consider other critical data  
such as melting temperatures, color of  
associated ash/smoke, color/emissivity,  
etc.



**“The temperature of the fire at the WTC was not unusual, and it was most definitely not capable of melting steel.” [Prof. Eagar, MIT, 2001]**

**“Your gut reaction would be the jet fuel is what made the fire so very intense, a lot of people figured that's what melted the [WTC] steel. Indeed it did not, the steel did not melt.” (Dr. Gayle, NIST, 2005)**



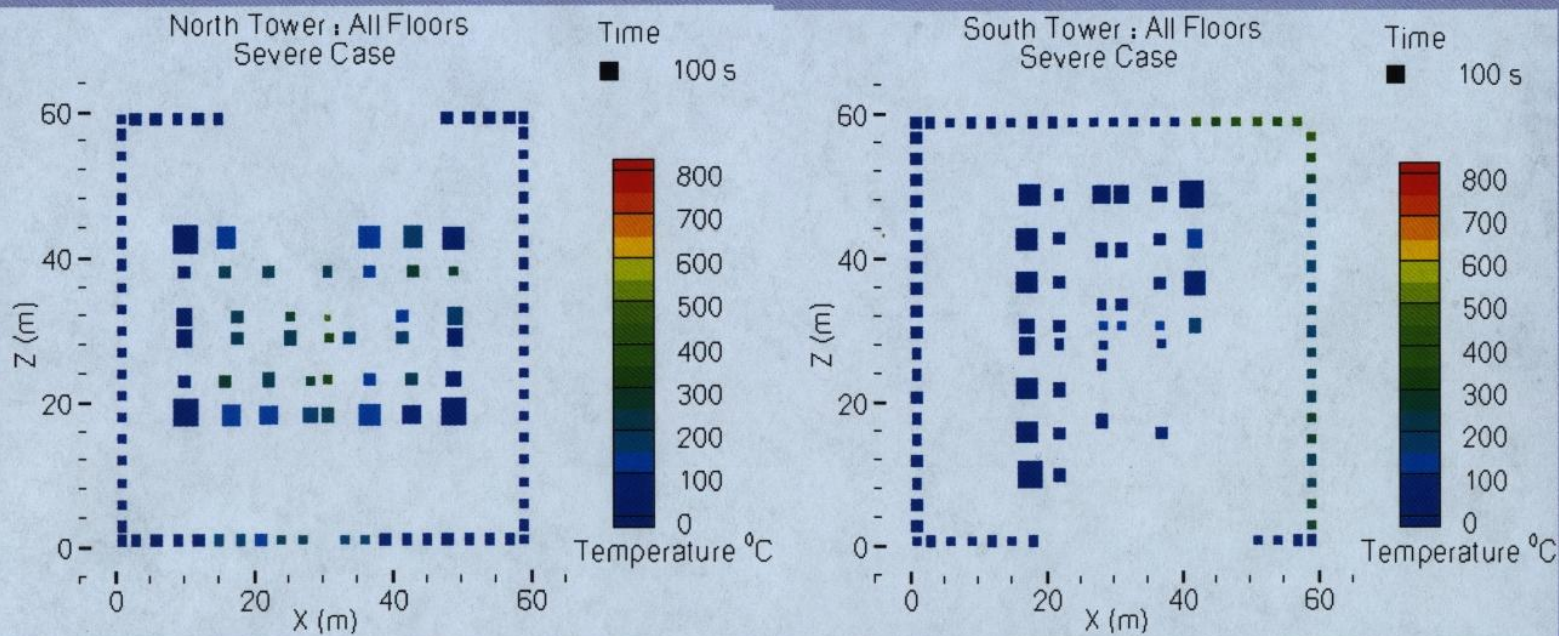
- Steel-frame: Huge core and heat sink. Not Hollow!

**NIST: Maximum WTC Column Temps  $\leq 600$  °C. Steel melts  $\sim 1500$  °C.  
Note missing columns: severed by planes at floors where hits occurred.**

## Predicted Column Temperatures

WTC 1

WTC 2



Shows maximum temperature reached by each column.

NIST responds to our questions, finally (ca. Aug 30, 2006)

[http://wtc.nist.gov/pubs/factsheets/faqs\\_8\\_2006.htm](http://wtc.nist.gov/pubs/factsheets/faqs_8_2006.htm)

- **“In no instance did NIST report that steel in the WTC towers *melted* due to the fires.**
- **[I agree! Fires did NOT melt the WTC steel.]**
- **“The melting point of steel is about 1,500 degrees Celsius (2,800 degrees Fahrenheit). Normal building fires and hydrocarbon (e.g., jet fuel) fires generate temperatures up to about 1,100 degrees Celsius (2,000 degrees Fahrenheit). NIST reported maximum upper layer air temperatures of about 1,000 degrees Celsius (1,800 degrees Fahrenheit) in the WTC towers (for example, see NCSTAR 1, Figure 6-36).”**
- **Conclusion: Molten structural steel is ruled out by NIST and all available data.**
- **Analysis of solidified slag agrees with this conclusion (data given later in this talk)**

There's more: NIST, Appendix C: **“Unusual flame..” “very bright flame.. which is generating a plume of white smoke”** WTC2, minutes before collapse



**“An unusual flame is visible within this fire. In the upper photograph {Fig 9-44} a very bright flame, as opposed to the typical yellow or orange surrounding flames, which is generating a plume of white smoke, stands out.**

**Source: NISTNCSTAR 1-5A Chapter 9 Appendix C NIST Fig. 9-44. p. 344 (Adobe 48)**

## NIST responds to our questions, finally (end of August 2006)

[http://wtc.nist.gov/pubs/factsheets/faqs\\_8\\_2006.htm](http://wtc.nist.gov/pubs/factsheets/faqs_8_2006.htm)

- **“NIST reported (NCSTAR 1-5A) that just before 9:52 a.m., a bright spot appeared at the top of a window on the 80th floor of WTC 2, four windows removed from the east edge on the north face, followed by the flow of a glowing liquid. This flow lasted approximately four seconds before subsiding.**
- **“Many such liquid flows were observed from near this location in the seven minutes leading up to the collapse of this tower.”**
- **→ Note: “glowing liquid” is associated temporally and spatially with the “bright spot”**
- **“NIST concluded that the source of the molten material was aluminum alloys from the aircraft...”**



## Experiments with Molten Aluminum BYU, Winter 2006

**Molten aluminum in daylight conditions (like 9-11 WTC) is silvery-straw-gray at all temperatures. But the WTC molten metal is yellow-orange in color – hence, NOT molten aluminum.**



BYU experiment (May 2006): **orange-yellow-hot steel cup pouring out liquid aluminum (silvery)** onto **pre-heated rusty steel** plus gypsum and concrete: **No exothermic reactions seen.**  
(Empirical evidence against liquid-aluminum + rust reactions)



## NIST responds to our questions, finally (end of August 2006)

[http://wtc.nist.gov/pubs/factsheets/faqs\\_8\\_2006.htm](http://wtc.nist.gov/pubs/factsheets/faqs_8_2006.htm)

- **“NIST concluded that the source of the molten material [observed flowing out of WTC2 before its collapse] was aluminum alloys from the aircraft, since these are known to melt between 475 degrees Celsius and 640 degrees Celsius (depending on the particular alloy), well below the expected temperatures (about 1,000 degrees Celsius) in the vicinity of the fires.**
- **“Aluminum is not expected to ignite at normal fire temperatures and there is no visual indication that the material flowing from the tower was burning.**
- **“Pure liquid aluminum would be expected to appear silvery.” [Correct per our experiments, and low emissivity of aluminum.]**
- **“However, the molten metal was very likely mixed with large amounts of hot, partially burned, solid organic materials (e.g., furniture, carpets, partitions and computers) which can display an *orange glow, much like logs burning in a fireplace*. The apparent color also would have been affected by slag formation on the surface.”**

How do we **find out** what **molten aluminum with wood, plastic, etc. added** will actually look like when poured out?



# We do experiments!

- NIST says that flowing aluminum with partially burned organic materials mixed in, “can display an orange glow.” But will it really do this? I decided to do an experiment to find out.
- 
- We melted aluminum in a steel pan using an oxy-acetylene torch.
- 
- Then we added plastic shavings -- which immediately burned with a dark smoke, as the plastic floated on top of the hot molten aluminum. Next, we added wood chips (pine, oak and compressed fiber board chips) to the liquid aluminum. Again, we had fire and smoke, and again, the hydrocarbons floated on top as they burned. We poured out the aluminum and all three of us observed that it appeared silvery, not orange! We took photos and videos, so we will have the recorded evidence as these are processed. (I have now attached two videos showing clearly the silvery appearance of the flowing aluminum.) Of course, we saw a few burning embers, but this did not alter the silvery appearance of the flowing, falling aluminum.
- 
- We decided to repeat the experiment, with the same aluminum re-melted. This time when we added fresh wood chips to the hot molten aluminum, we poured the aluminum-wood concoction out while the fire was still burning. And as before, the wood floated on top of the liquid aluminum. While we could see embers of burning wood, we observed the bulk of the flowing aluminum to be silvery as always, as it falls through the air.
- 
- This is a key to understanding why the aluminum does not “glow orange” due to partially-burned organics “mixed” in (per NIST theory) – because they do NOT mix in! My colleague noted that it is like oil and water – organics and molten aluminum do not mix. The hydrocarbons float to the top, and there burn – and embers glow, yes, but just in spots. The organics clearly do NOT impart to the hot liquid aluminum an “orange glow” when it falls, when you actually do the experiment! (Refer to attached videos of our experiments.)
- 
- In the videos of the molten metal falling from WTC2 just prior to its collapse, it appears consistently orange, not just orange in spots and certainly not silvery. We conclude that the falling metal which poured out of WTC2 is NOT aluminum. Not even aluminum “mixed” with organics as NIST theorizes.
- 
- What is it? I have a bold hypothesis which still stands all our experimental tests to date, as described in my paper, published here: <http://www.journalof911studies.com/>
- 
- NIST should do experiments to test *their* “wild” theories about what happened on 9/11/2001, if they want to learn the truth about it.
- **We invite NIST to show us how to prepare liquid aluminum with organics so that, WHEN Poured OUT, it will exhibit a consistent “orange glow.”**

Sincerely,

Steven E. Jones

# We do experiments! Scientific method

Two video clips show our experiments using poured-out aluminum with wood and plastic chips added. Available here:

[http://www.scholarsfor911truth.org/Liquid\\_Aluminum\\_012.mpg](http://www.scholarsfor911truth.org/Liquid_Aluminum_012.mpg) and

[http://www.scholarsfor911truth.org/Liquid\\_Aluminum\\_011.mpg](http://www.scholarsfor911truth.org/Liquid_Aluminum_011.mpg)

We OBSERVE that organics FLOAT to the surface and produce embers, but do **not** produce a uniform “orange glow” (NIST).

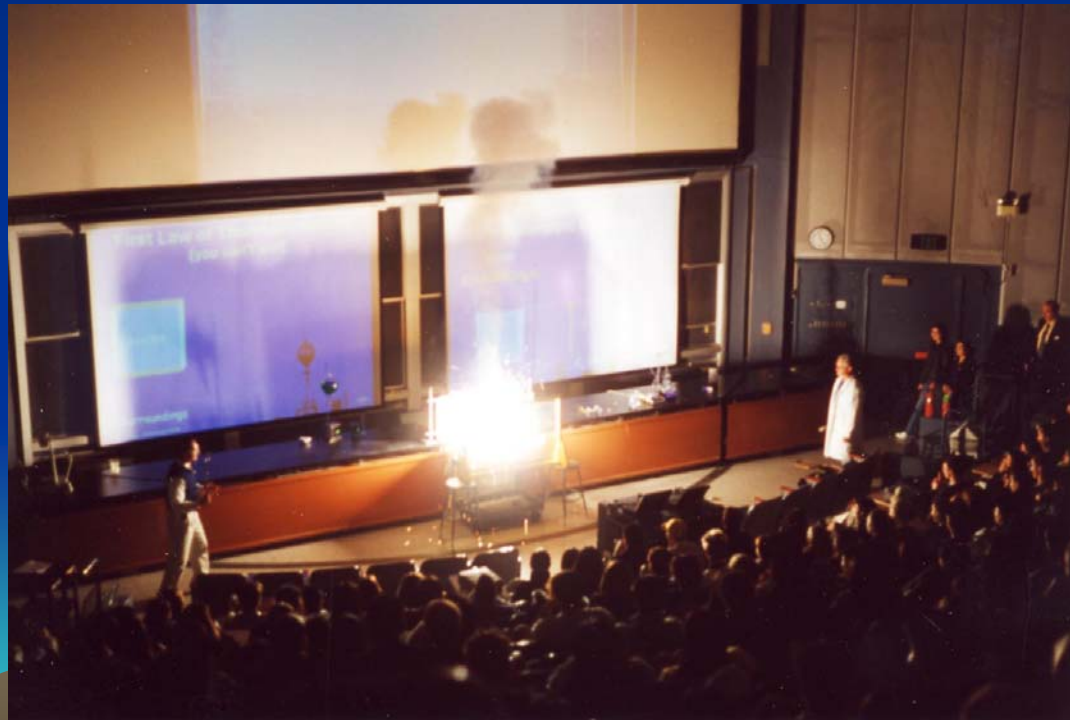
Conclusion: Poured-out, liquid aluminum is SILVERY-GRAY, even when wood and plastic chips are added, not glowing orange as at WTC – and the liquid-aluminum explanation is highly dubious.

NIST is invited to show us how to make **poured-out** liquid aluminum acquire a consistent “orange glow” (as seen at WTC2)

*So what else could the yellow-orange liquid metal be?*

4. Highly exothermic reactions, e.g., thermites:

**Aluminum (powder) + Iron oxide →  
Aluminum oxide (white plume)  
+ Molten Iron (yellow-white hot)**

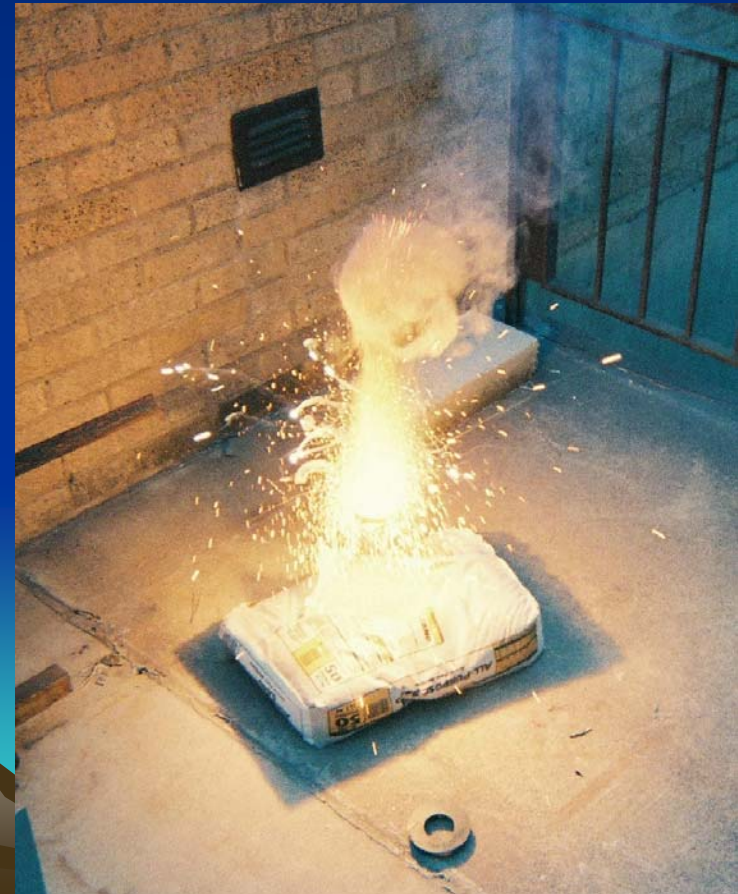


# Aluminothermic = thermite-type reactions

- **Aluminum powder**
  - Finely divided, for **incendiary** use
  - Ultra-fine (nanoaluminum) for **explosives (called superthermites)**
  - **METAL OXIDES AND OTHER OXIDIZERS**
  - Iron oxide
  - Zinc oxide
  - $\text{KMnO}_4$
  - $\text{Ba}(\text{NO}_3)_2$  (toxic!)
- Thermate: adds sulfur to cut through steel quickly.
- 1,3 DPP in sol-gels

# The 9/11-WTC observations fit very well the characteristics of **thermite** reactions (So. Tower and our own experiments)

- (1) White-hot reaction zone.
- (2) White aluminum oxide ash floats upward from reaction



# Molten metal mystery at WTC... Thermite experiments by our group...



## Molten metal mystery at WTC...

Thermite experiments showing slag after reaction, right  
“Fires burned and molten [metal] flowed in the pile of ruins  
still settling beneath [Sarah Atlas] feet.” Penn Arts and Sciences,  
summer 2002. **CLEARLY BEFORE CLEAN-UP BEGAN (lights on truck glowing, etc)**



# Previously molten-metal from WTC, cooled shows high iron content (rust) consistent with thermite reaction.

Such molten-metal pools never before seen (expert Blanchard interview) with controlled demolitions which did not use thermite, nor with building fires, nor with thermal lances. **HUGE QUANTITIES of the stuff, mostly destroyed.**



- “Eyewitness testimony and a substantiating photographic record suggest that a large sample of slag from the World Trade Center is being held at Hangar 17 of the John F. Kennedy International Airport in New York City. Access to the slag sample should be made available to appropriate physicists in order to conduct non-destructive X-ray Fluorescence tests and other forms of examination, which should reveal evidence of the cause of the collapse of the Twin Towers. Based on these tests, we further demand two small samples (about the size of a fist) be extracted from this large piece for further scientific analysis.”
- -- Scholars for 9/11 Truth petition

# Molten metal pools beneath both Towers and WTC 7

“In the first few weeks, sometimes when a worker would pull a steel beam from the wreckage, the end of the beam would be dripping molten steel [or other metal]” [gcn.com/print/21\\_27a/19930-1.html](http://gcn.com/print/21_27a/19930-1.html)

	°F	°C	K
Lead (Pb) Melts	621	327	601
Faint Red	930	500	770
Blood Red	1075	580	855
<b>WTC Steel Temps due to fires (~max., NIST)</b>	1200	<b>650</b>	923
Aluminum alloy Melts	~1100	~600	~875
Medium Cherry	1275	690	965
Cherry	1375	745	1020
Bright Cherry	1450	790	1060
Salmon	1550	845	1115
Dark Orange	1630	890	1160
Orange	1725	940	1215
<b>Lemon</b>	1830	<b>1000</b>	1270
Light Yellow	1975	1080	1355
White	2200	1205	1480
<b>*Structural Steel Melts</b>	~2750	<b>~1510</b>	~1783
*Iron Melts	2800	1538	1811
<b>*Thermite (typical)</b>	>4,500	<b>&gt;2500</b>	>2770

For video summary regarding thermites and WTC collapses, see:

<http://www.supportthetruth.com/jones.php>

QuickTime™ and a YUV420 codec decompressor are needed to see this picture.



## From the NIST FAQ, Aug. 2006:

- “Was the steel tested for explosives or thermite residues? The combination of thermite and sulfur (called thermate) "slices through steel like a hot knife through butter.”
- **“NIST did *not* test for the residue of these compounds in the steel.” !**
- (Did they test for residues of thermites anywhere? Solidified slag? WTC dust? We invite NIST to answer.)



# Well, we DID.

## Electron microprobe (WDS) June 13 - 14, 2006



Introduction to study of thermites at WTC on 9/11:  
<http://www.supportthetruth.com/jones.php>

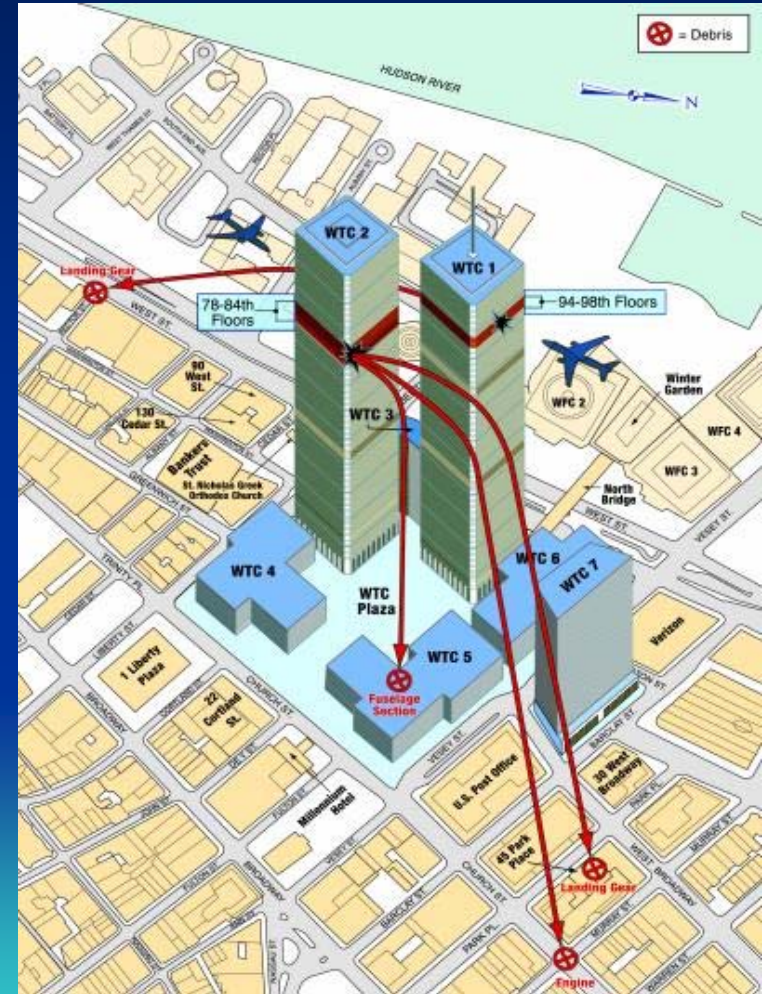


# Where were WTC samples obtained?

- **“The provenience of the WTC dust sample is an apartment at 113 Cedar Street in New York City, NY.**
- **“A monument constructed primarily from structural steel from the WTC Towers located at Clarkson University in Potsdam, New York, is the source of previously-molten metal samples.**
- “Results from these studies were presented at the 2006 meeting of the Utah Academy of Science followed by the American Scholars Symposium (Los Angeles)... The research continues.”
- Quoted from Dr. Steven E. Jones’ paper, here:
- <http://www.journalof911studies.com/>
- **Samples were sent directly to Prof. Jones at BYU, and inspected by him and independently inspected by Dr. Jeffrey Farrer and then analyzed.**



# Apartment at 133 Cedar St., NY City. WTC dust entered through windows which broke.



Previously-molten metal samples from WTC monument at Clarkson University (left). Thermite residue (right, BYU experiment).  
In both WTC and known-thermite-residue samples, the blackish nodules are solid & highly magnetic, while the other slag is porous.



## Residues in the WTC dust and solidified metal provide significant clues regarding origins

- **1. WTC steel sample:** Predominately Iron; approximately 750 ppm Cr, 290 ppm Ni, 85 ppm Zn, 40 ppm Ti
- **2. Aircraft aluminum, Alloy 2024 typical:**  
**Wt. %:** Al 90.7 - 94.7; CrMax 0.1; Cu 3.8 - 4.9; FeMax 0.5; SiMax 0.5; TiMax 0.15; ZnMax 0.25; Mg 1.2 - 1.8; Mn 0.3 - 0.9; Other, eachMax 0.05; Other, totalMax 0.15
- **3. Mixture of above + office materials:** add carbon + common elements of such matter



Residues in the WTC dust and solidified metal provide significant clues regarding origins

4. **Molten metals produced by a highly exothermic chemical reaction (e.g., aluminothermic reactions, or thermites)**

**Al<sub>2</sub>O<sub>3</sub> is a thermite-product**, comes off mainly in white dust form

Also expected in BOTH dust and solidified slag, from oxygen bearing compounds (typically used in thermites):

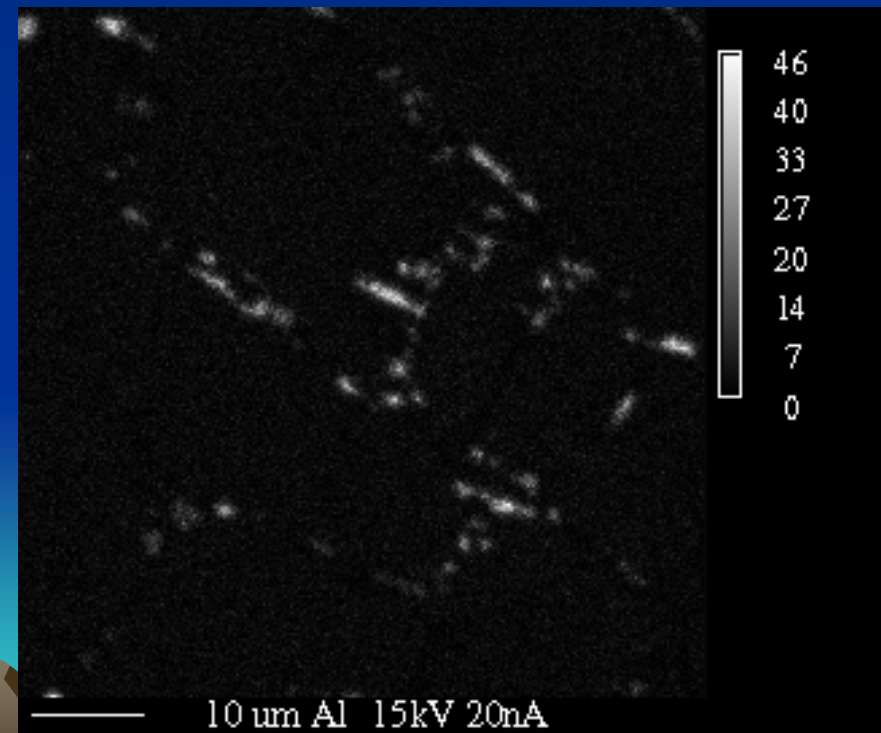
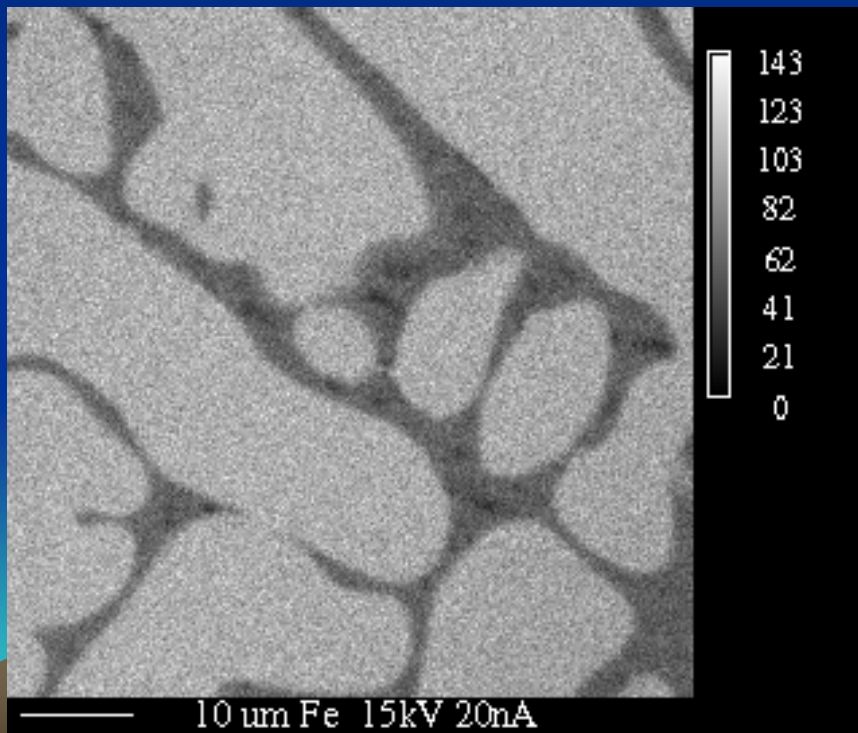
**Abundant Iron, Zinc; Barium & Sulfur** (typical in military thermites\*), **Manganese** (from KMnO<sub>4</sub>...), **Fluorine** (from polytetrafluoroethylene as a base).

→ **What do we find?**

\*<http://www.dodtechmatch.com/DOD/Patent/PatentDetail.aspx?type=description&id=6766744&HL=ON>

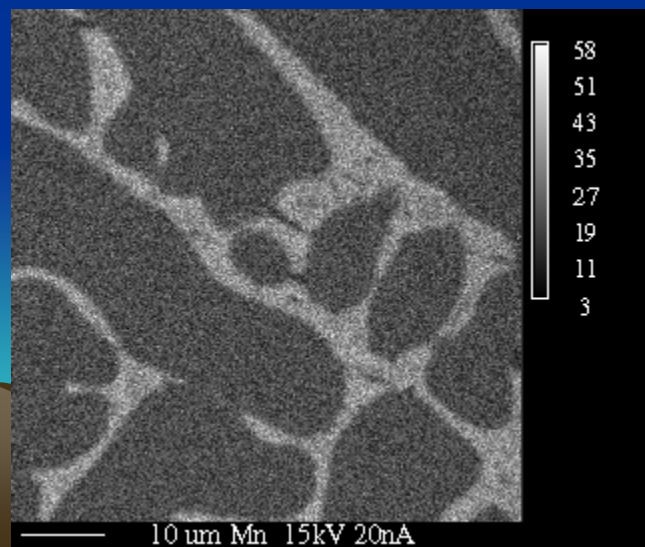
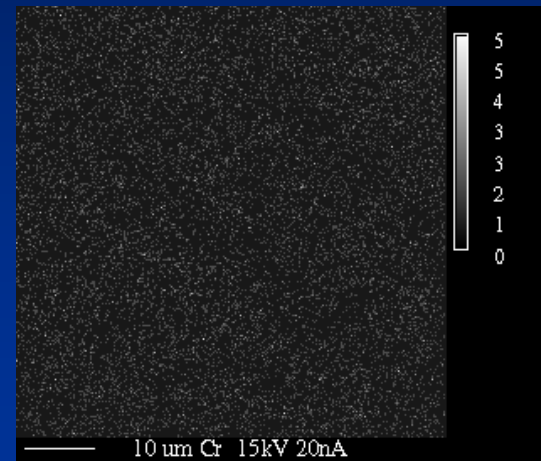
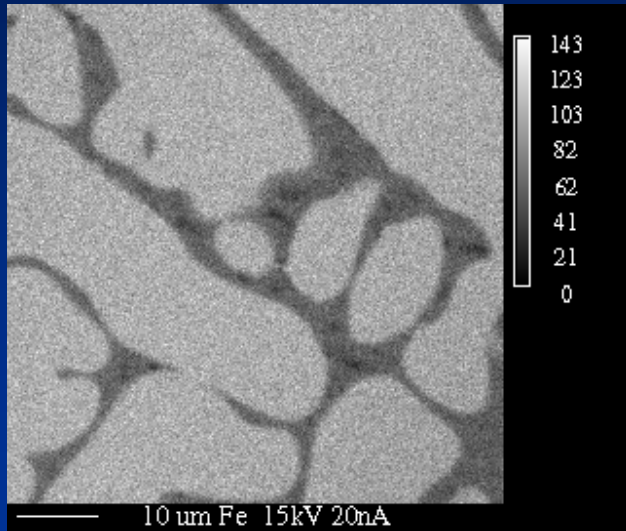
## Electron microprobe data (June 2006)

1. **Previously molten metal is predominately IRON** → we can rule out molten aluminum from jet planes (in conjunction with other data described earlier). Lighter regions => more of that element



# Electron microprobe (WDS) maps (BYU, June 2006)

2. *Previously molten metal has very little (if any) Chromium yet abundant Manganese\* → we rule out molten structural steel (as a major component).*



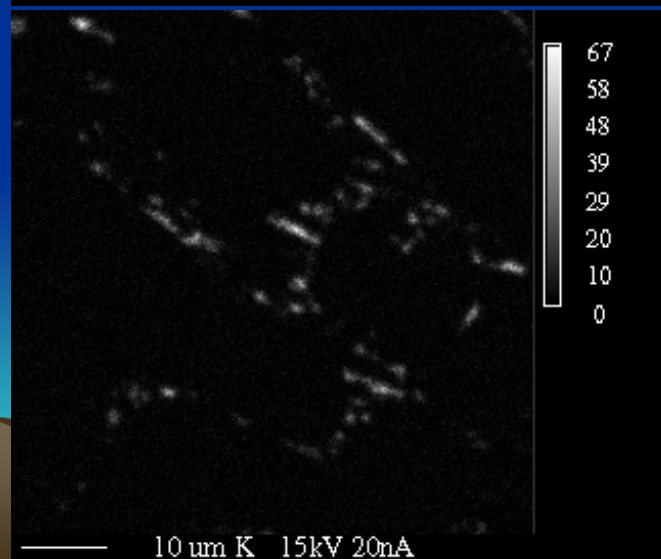
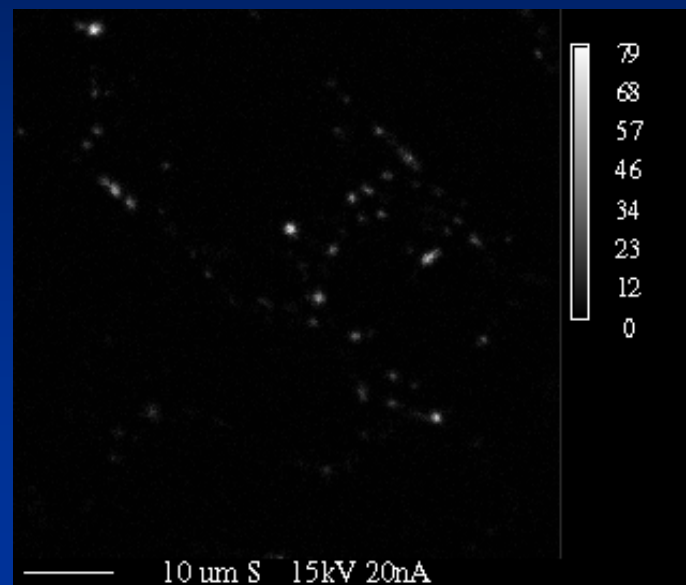
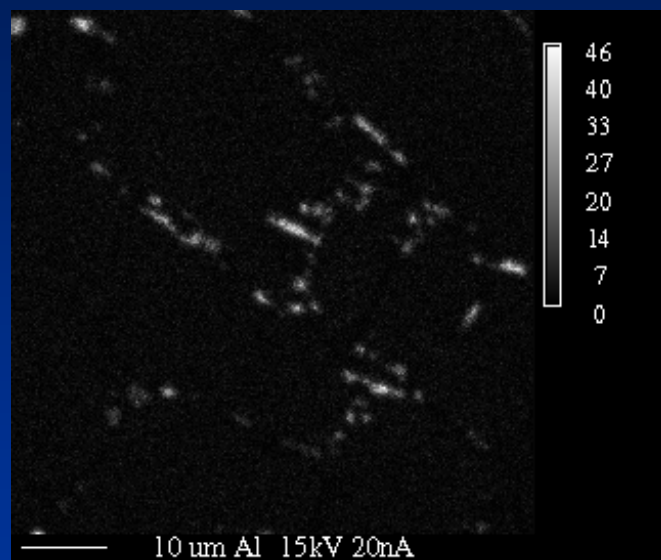
- Cr is near background level.
- Mn is abundant, anti-correlated with Fe...

- Thus, experimental data (including videographic and other data shown so far) already rule out molten aluminum (NIST's explanation) or molten steel (ruled out by NIST also) or a mixture...
- That leaves powerful chemical reactions as the source of the molten metal!
- Next we present further data which supports that conclusion, and provides further positive evidences for "thermite" residues (that is, from aluminothermics).



## Electron microprobe data (BYU, June 2006)

3. Previously molten metal has (in spots) Aluminum (Al, possibly  $\text{Al}_2\text{O}_3$ ) Sulfur (S) and Potassium (K); note associations



Also, abundant Manganese, shown earlier

# MYSTERIOUS SULFIDATION OF STEEL

- “Evidence of a severe high temperature corrosion attack on the steel, including oxidation and sulfidation with subsequent intergranular melting, was readily visible...The severe corrosion and subsequent erosion of Samples 1 and 2 are a very unusual event. No clear explanation for the source of the sulfur has been identified.”

<http://www.fema.gov/library/wtcstudy.shtm> FEMA, Appendix C

- [http://www.fema.gov/pdf/library/fema403\\_apc.pdf](http://www.fema.gov/pdf/library/fema403_apc.pdf)
- NY Times: “perhaps the deepest mystery uncovered in the investigation.”

- INDEPENDENT laboratory findings!

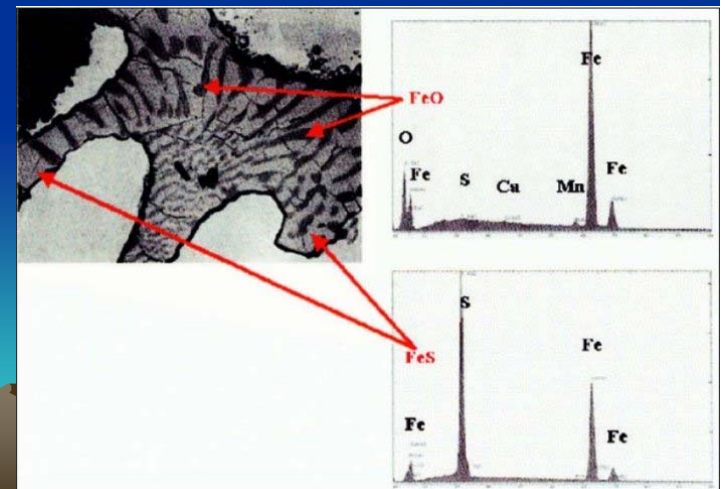
- We both see high-temps and SULFUR...

- Sulfur is used with thermite  
(called “thermate”)

- to cut fast through steel

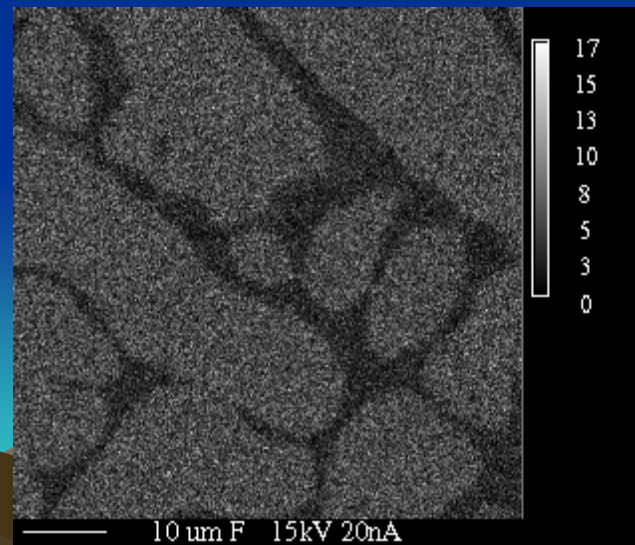
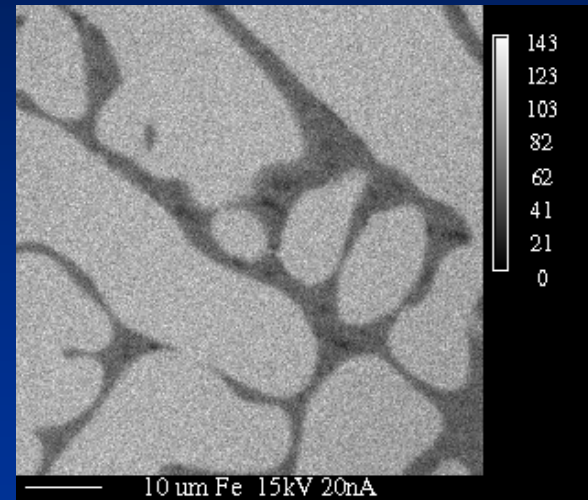
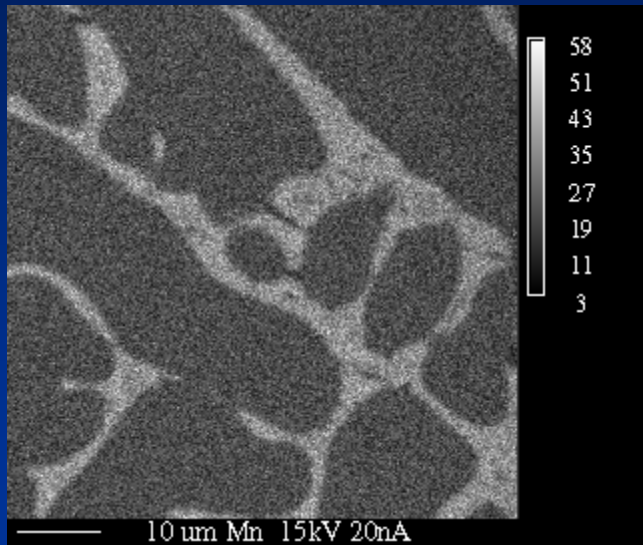
- <http://www.dodtechmatch.com/DOD/Patent/PatentDetail.aspx?type=description&id=6766744&HL=ON>

- <http://www.dodtechmatch.com/DOD/Patent/PatentDetail.aspx?type=description&id=6766744&HL=ON>



Electron microprobe data (BYU, June 2006)

4. Previously molten metal has **Manganese** and **Fluorine** in abundance (where did **Fluorine** come from? Not from structural steel!)... more clues!



- **Fluorine is present in an oxidizer using Polytetrafluoroethylene as its base, used in thermite charges.**

<http://www.osti.gov/bridge/servlets/purl/1344-QDsu9M/webviewable/1344.pdf>

- **Potassium Permanganate (KMnO<sub>4</sub>) is also commonly used as an oxidizer in thermite-reactants (aluminothermics).**
- **Hence, K, Mn and F are often present in thermite residue, suggesting they are part of a “thermite fingerprint” at WTC.**

Technical notes on use of thermite for cutting steel (etc.) based on government-laboratory report (1998): <http://www.osti.gov/bridge/servlets/purl/1344-QDsu9M/webviewable/1344.pdf>

- “The thermite cutting process consists of heating and melting the metal in the cutting area by the thermal energy released during combustion of a thermite mixture (under conditions of an exothermic reaction)...
- These characteristics show that the composition of the [thermite] mixtures using **polytetrafluoroethylene as a base** has a heat input **2.5–5.0 times higher** than that of the mixture based on thermite. These mixtures were tested on bench generators. The **target** consisted of plates made from Kh18NT brand **stainless steel** with dimensions of 100x 100mm and with a thickness of 2 to 6 mm, which were set up 50mm from the generator nozzle. [This is where the Fluorine could have come from: thermite mixture with polytetrafluoroethylene as a base.]
- As a result of the experimental work performed, the following conclusions were reached:
  - **Almost any metal or nonmetallic material can be subjected to thermite cutting.**
  - **The thermite cutting process can be performed in different attitudes...** [vertical cuts as well as horizontal cuts, etc.]
  - **The thermite cutting technique ensures autonomous work performance... away from electric power...**
  - The thermite cutting technique is characterized by maneuverability and the **small dimensions of its devices, which allows use of the technique in hard-to-reach locations.**
  - The pyrotechnic cutting torch can be used with **automatic and remote-control systems.”**



# Wave-dispersive X-ray Fluorescence analysis follows.

## Siemens SRS 303 at BYU, 7/31/06.



XRF: Counts/sec in iron peak in:

Steel = WTC steel sample

MetMon = porous slag from Clarkson sample

MetMon Nodule = non-porous nodule from Clarkson sample, .

....highly magnetic

Dust Mag = magnetic component of WTC dust

Dust Mag Out = remaining WTC dust

ThermJ = Thermite residue from experiment at BYU

	Fe	BkFe	
Steel	727.3	0.8	726.5
MetMon	120.8	0.5	120.3
MetMon Nodule	272.7	0.6	272.1
Dust Mag	45.94	0.7	45.24
Dust Mag Out	26.38	0.89	25.49
ThermJ	261.2	0.6	260.6

XRF: Counts/sec in TITANIUM peak

0.03 is rate normalized to iron peak (to take out geometrical differences, etc. – this is a decent way to normalize the data, not final)

4.1 X 10<sup>-5</sup> is ratio of titanium to iron (rates) in WTC steel.

Last column is normalized titanium, compared to titanium in steel.

High titanium noted. Where does it come from?

	Ti	BkTi			
Steel	0.3	0.27	0.03	4.1x10 <sup>-5</sup>	1.0
MetMon	0.32	0.24	0.08	66.5	16.2
MetMon Nodule	0.26	0.26	0	0	0.0
Dust Mag	0.339	0.256	0.083	183.5	44.8
Dust Mag Out	1.35	0.283	1.067	4184	1020.5
ThermJ	1.22	0.222	0.998	0.998	0.2

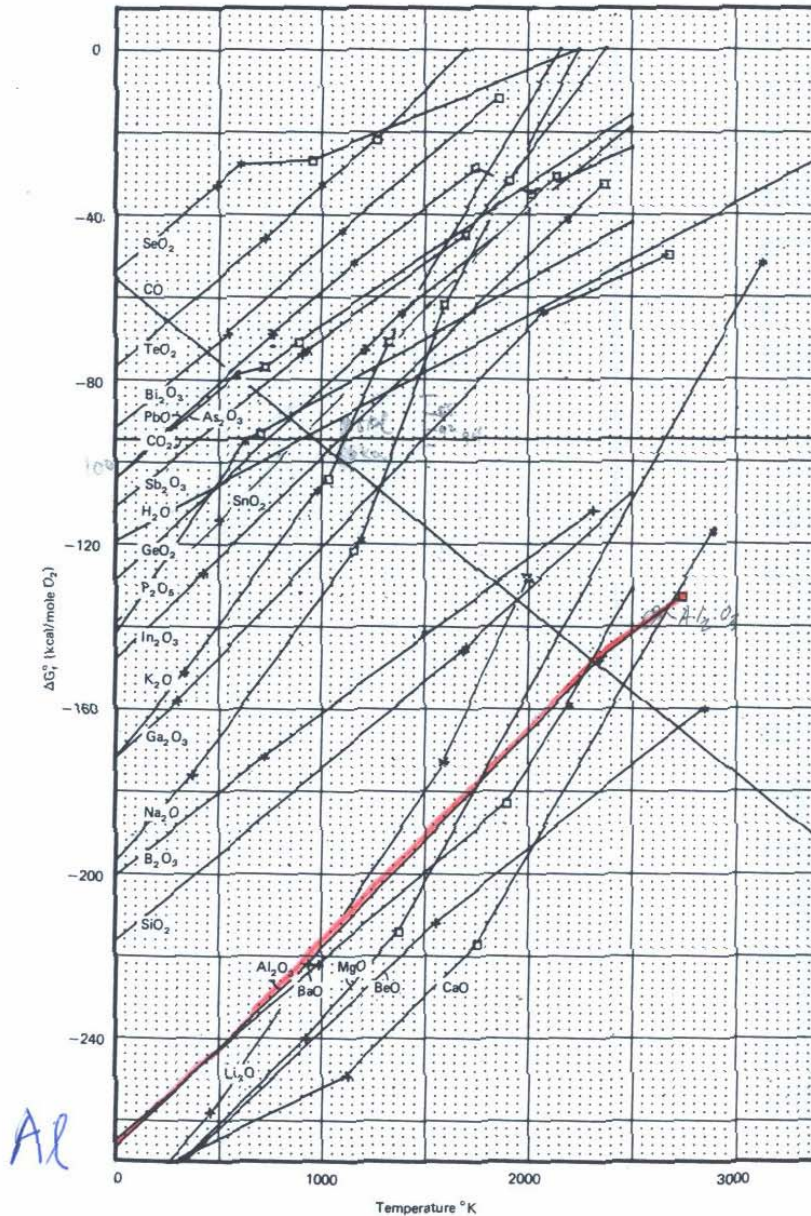
XRF: Counts/sec in ZINC peak

$8.7 \times 10^{-5}$  is ratio of ZINC to iron (rates) in WTC steel.

Last column is normalized ZINC, compared to ZINC in steel.

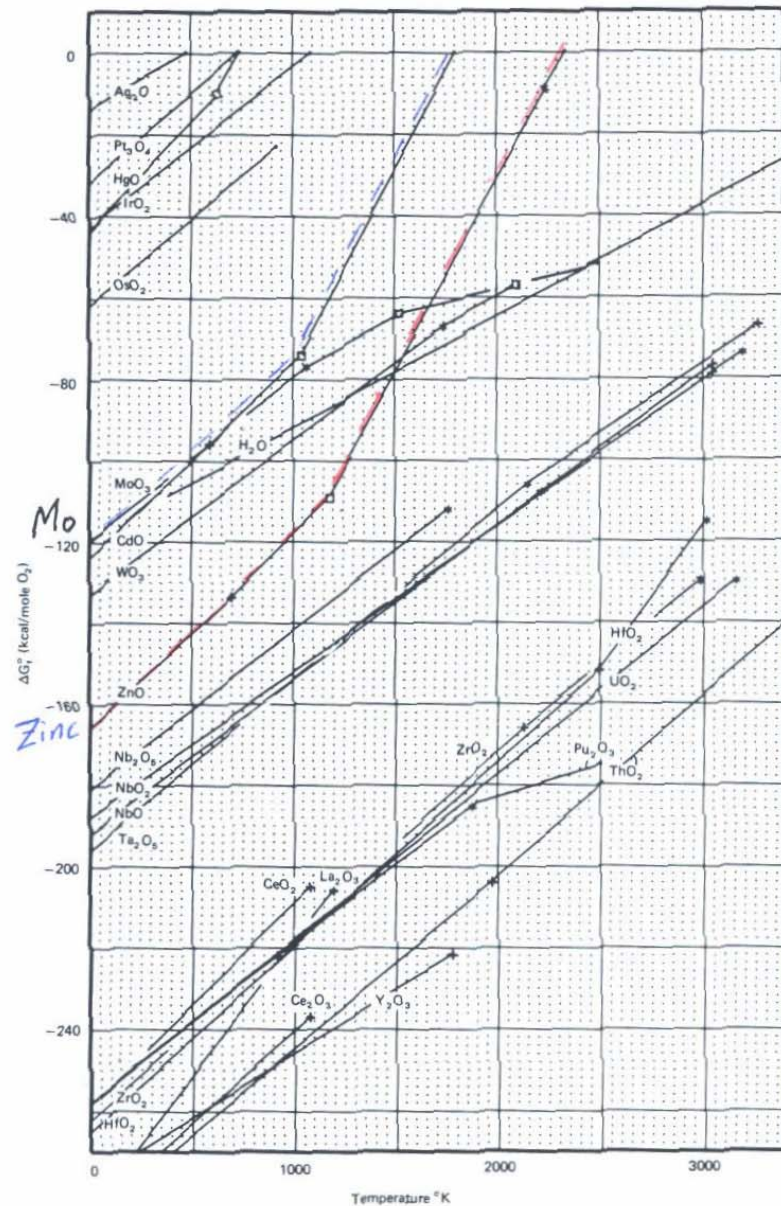
**Big mystery: where does all the ZINC come from?**

	Zn	BkZn			
Steel	2.223	2.16	0.063	$8.7 \times 10^{-5}$	1.0
MetMon	2.115	1.964	0.151	125.5	14.4
MetMon Nodule	2.32	2.06	0.26	95.5	11.0
Dust Mag	3.08	2.26	0.82	1812.6	208.3
Dust Mag Out	8.493	1.745	6.748	26,473	3042.9
ThermJ	2.01	1.61	0.4	153	17.6



**Gibbs free energy curves for various oxides.**  
**Red = Al<sub>2</sub>O<sub>3</sub>**  
**(-270 kCal/mole O<sub>2</sub> at 0 K)**  
**(Useful for calculating energy released in aluminothermic reactions.)**

9 Chart 111c  $\Delta G_f^\circ$  of some oxides of 4d, 5d, lanthanide, and actinide metals



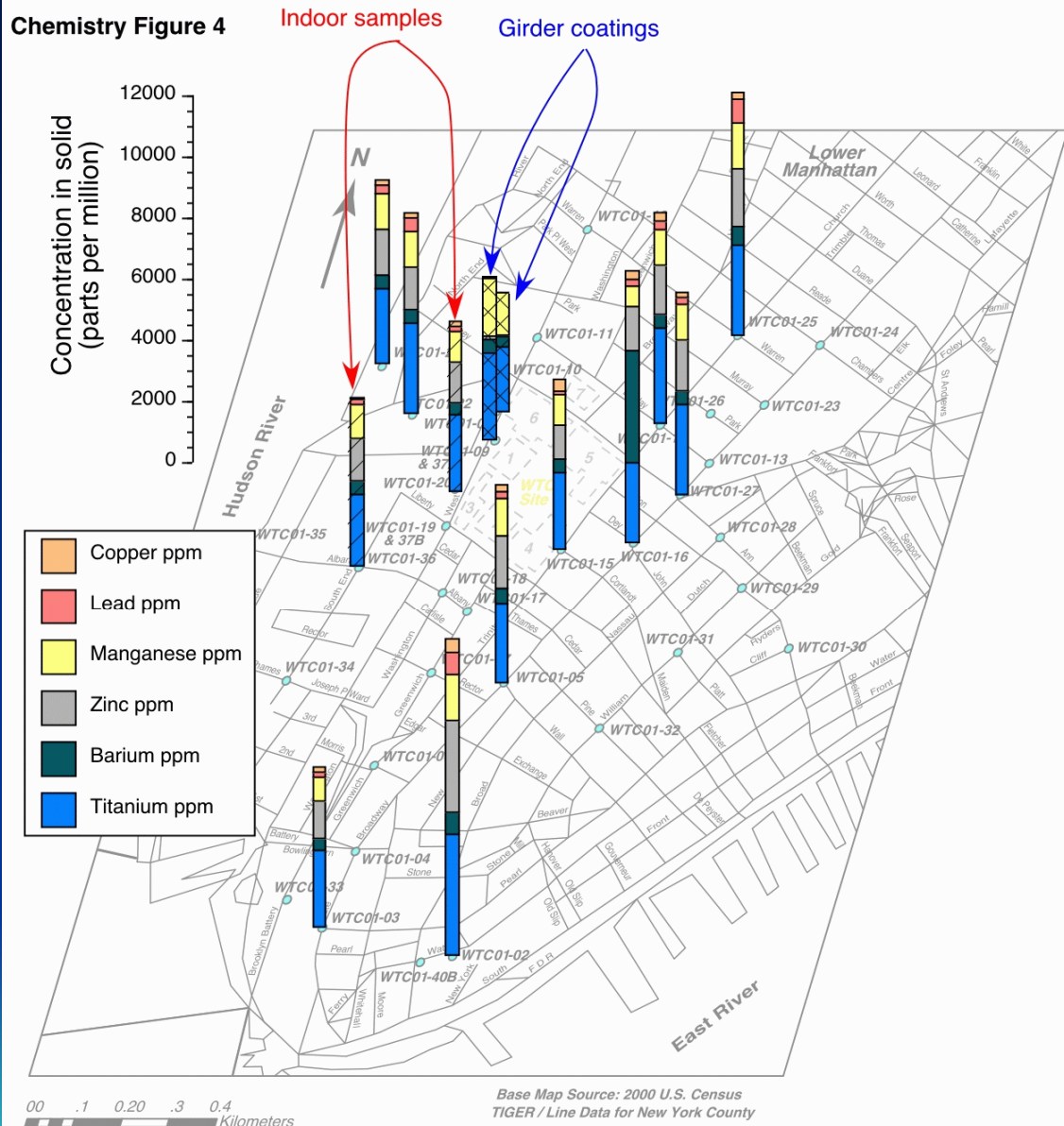
**Gibbs free energy curves for various oxides.**

**Red = ZnO**

(Steep increase with temperature. To zero at 2300 K !)

**(Thus, much energy released in Al + ZnO aluminothermic reactions.)**

Chemistry Figure 4



Concentrations of the predominant trace metals in samples of dusts and girder coatings

Thus, ZINC oxide would be a good choice to add to thermites: high-energy release.

USGS independently confirms much Zinc in the WTC dust, 1500 ppm typical (up to about 3000 ppm)

<http://pubs.usgs.gov/of/2001/ofr-01-0429/chem1/wtcchemfig4new11-7.gif>

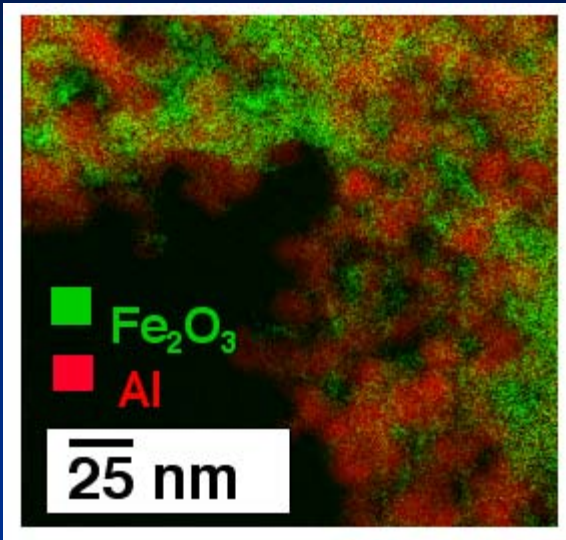
Note also high concentration of Barium (Ba(NO3)2 commonly added to thermate). Also high concentration of Manganese, which we noted early from our microprobe maps of WTC solidified slag.

*A consistent picture begins to emerge: Thermites were used at WTC incorporating aluminum powder and oxygen-bearing compounds of iron, zinc, barium, and manganese...*

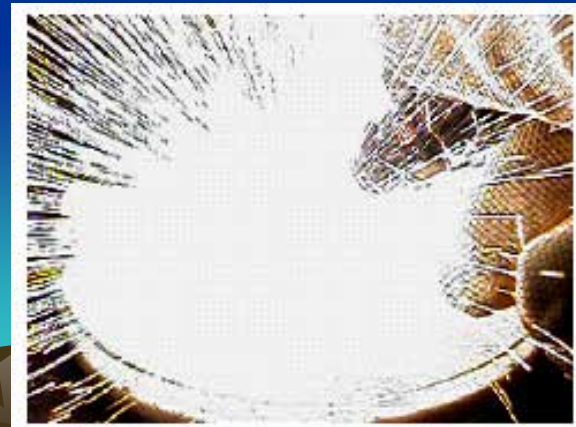
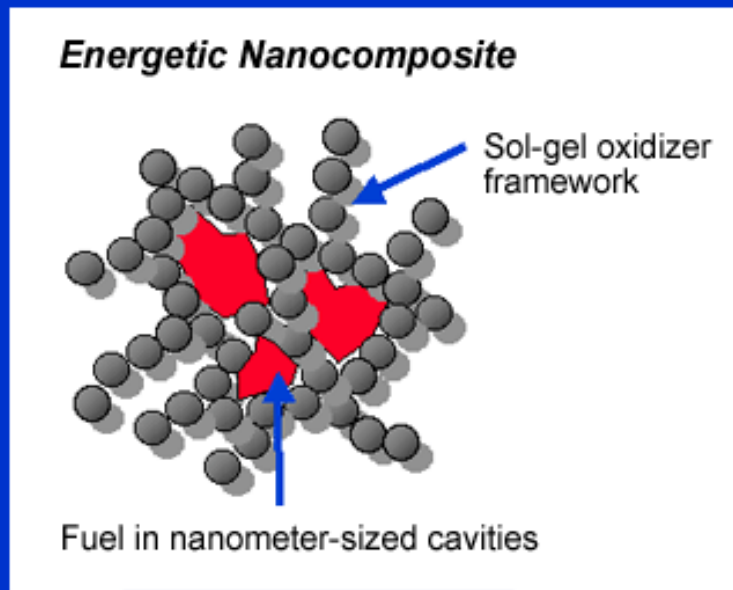
# How can one tell whether thermite reactions were used? MEI answers.

- **“When thermite reaction compounds are used to ignite a fire, they produce a characteristic burn pattern [recall white ash, white-yellow how liquid metal, intense white reaction zone -- WTC 2!]**
- **and leave behind evidence. These compounds are rather unique in their chemical composition, containing common elements such as copper, iron, calcium, silicon and aluminum, but also contain more unusual elements, such as vanadium, titanium, tin, fluorine and manganese. While some of these elements are consumed in the fire, many are also left behind in the residue.”**
- <http://www.materials-engr.com/ns96.html>
- → We seek another laboratory to test solidified metal and WTC dust samples for residues which appear to disclose the use of thermites on 9/11/2001. Samples are available direct from the persons who saved materials.

Thermite is an incendiary (slow); but ultra-fine powder form is an explosive (very fast!) Called **Superthermites**



- <http://www-cms.llnl.gov/s-t/sol-gel.html>
- Left: transmission electron micrograph of a sol-gel incorporating Fe<sub>2</sub>O<sub>3</sub>/Al (thermite) nanocomposites illustrates the extremely fine mixing of **ultrafine aluminum and iron oxide**.
- Below: photo of sol-gel nano-composite **exploding**.



# NIST Aug. 2006 **ignores** what my paper says about **explosive SUPERTHERMITES**

- “Separate from the WTC towers investigation, NIST researchers estimated that at least 0.13 pounds of thermite would be required to heat each pound of a steel section to approximately 700 degrees Celsius (the temperature at which steel weakens substantially). Therefore, while a thermite reaction can cut through large steel columns, **many thousands of pounds of thermite** would need to have been placed inconspicuously ahead of time, remotely ignited, and somehow held in direct contact with the surface of hundreds of massive structural components to weaken the building. This makes it an unlikely substance for achieving a controlled demolition.” [http://wtc.nist.gov/pubs/factsheets/faqs\\_8\\_2006.htm](http://wtc.nist.gov/pubs/factsheets/faqs_8_2006.htm)
- **Using explosive superthermites, much less is needed as we shall see next... (also discussed in my paper in Journalof911Studies.com)**



- Workers attaching explosives to steel columns (left)
- Note application of linear cutter-charge to steel column at 45-degree angle
- Preparation for a controlled demolition of a building (RDX in this case)
- From History Channel: “Wrecking ball – Modern marvels” and thanks to Robert Moore and <http://piratenews.org/911con.html>
- Compare columns at WTC: Lower photo is Fig 3-5 from E. Hufschmidt, “Painful Deceptions.” The date when the photo was taken is unknown, but the columns cut at an angle are interesting, particularly when one observes black slag (such as produced by thermite) both inside and outside the angle-cut column. Further investigation is underway. More angle-cut columns (etc.) shown here: <http://www.snowshoefilms.com/ftp2/hummux/molten%20metal%20clip%20BBm.mov>

“The explosive charges used to bring down the Landmark Tower [380 ft tall, 30 stories] weighed only **364 pounds**, consisting of 198 pounds of 60-percent nitroglycerine-based gel in 1-1/4 inch sticks, and 166 pounds of RDX (a C-4 derivative).

To break structural steel, **369 linear shaped armor-piercing charges were required**. Concrete columns were broken with the larger charges of RDX ranging from 2 ounces to 12 ounces at a density of 600 grains to 4,000 grains per lineal foot.” <http://www.acppubs.com/article/CA6325450.html>

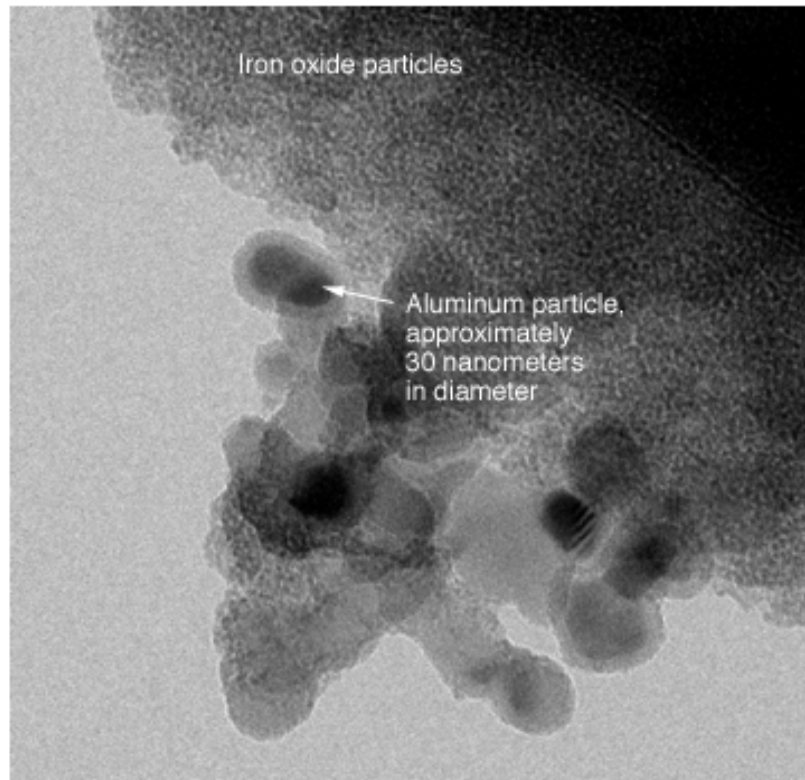
**Scaling to the WTC Towers, only about 1300 pounds of similar explosives per Tower would be needed, at about that many linear-shaped charges to break structural steel.**



Excellent videos on controlled demolition:

- <http://video.google.ca/videoplay?docid=-6708190071483512003&q=9%2F11+mysteries>
- <http://www.realcities.com/multimedia/dfw/news/archive/implosion/0318Implosion.html>
- <http://www.dfw.com/multimedia/dfw/news/archive/0318implosion1/index.html>
- Free-fall of roof: 4.9 seconds: about the same time for actual fall, through use of explosives!
- Compare with rapid fall of WTC 7 (also in nearly free-fall time).

Gel-explosives: **Tiny aluminum particles in iron oxide, in a sol-gel:**  
“High energy density and extremely powerful” and “can be cast  
to shape” <http://www.llnl.gov/str/RSimpson.html> (Livermore Nat'l Lab, 2000)



Transmission electron micrograph of a thermite nanocomposite energetic material. The material is made up of an extremely fine iron oxide xerogel (approximately 2-nanometer particles) that has approximately 30-nanometer-diameter aluminum metal spheres (the larger globules) embedded in it.

- “In addition to providing materials that have **high energy density** and are **extremely powerful**, sol-gel methodologies offer more safe and stable processing. For instance, the materials can be **cast to shape**”



# Sol-gels to hold the thermite expected to leave tell-tale residue, 1,3-diphenylpropane (1,3-DPP)...

<http://www.rsc.org/publishing/journals/CC/article.asp?doi=b310405b>: "Pore size effects in the pyrolysis of 1,3-diphenylpropane confined in mesoporous silicas"

(Research by chemist Kevin Ryan)

- **Analysis of the WTC dust showed:**



- “One molecule, described by the EPA's Erik Swartz, was present at levels "that dwarfed all others":
- “*1,3-diphenylpropane*. "We've never observed it in any sampling we've ever done," Swartz said.”
- "He said it was most likely produced by the plastic of tens of thousands of burning computers."
- <http://www.newsday.com/news/health/ny-hsair0911,0,471193.story?coll=ny-homepage-right-area>
- If the 1,3 DPP was due to burning computers, why was it not previously observed “in any sampling we’ve ever done”? It is possible, but then sampling of air from fires where computers are burning should show the 1,3 DPP. Such sampling is encouraged to resolve the question.
- At this time, large amounts of 1,3 diphenylpropane suggest but do not prove that high-tech sol-gel thermite arson used on the WTC buildings.

# How to set explosives and incendiaries off, at will?

## Electric matches!



- “The Super-Thermite electric matches... are safer to use because they resist friction, impact, heat... thereby minimizing accidental ignition.
- **“Applications include triggering explosives for demolition”** [http://awards.lanl.gov/PDFfiles/Super-Thermite\\_Electric\\_Matches\\_2003.pdf](http://awards.lanl.gov/PDFfiles/Super-Thermite_Electric_Matches_2003.pdf)
- Thermite did not ignite when heated to red hot with a propane torch!  
(No accidental ignition; Jones experiment 2006)

# 9/11 Dust immediately found dangerous



- **“Tests revealed the dust to be extremely alkaline with a pH of 12.1 (out of 14) and that some of it was as caustic as liquid drain cleaner. It was obvious that precautions had to be taken to protect the workers and people returning to their homes from the dust.”**

**Gregg Swayze, USGS**

- Sam Vance, an environmental scientist with the EPA, sent the results to officials at the EPA..

- [\[St. Louis Post-Dispatch, 2/10/02\]](#)

# EPA Inspector Gen'l Tinsley learns the Truth...

- WASHINGTON – **“At the White House's direction, the Environmental Protection Agency gave New Yorkers misleading assurances that there was no health risk from the debris-laden air after the World Trade Center collapse,** according to an internal inquiry.
- **“The White House "convinced EPA to add reassuring statements and delete cautionary ones" by having the National Security Council control EPA communications after the Sept. 11 terror attacks, according to a report issued late Thursday by EPA Inspector General Nikki Tinsley.**
- 
- In all, the EPA issued five news releases within 10 days of the attacks and four more by the end of 2001 reassuring the public about air quality. [Soon,] respiratory ailments and other problems began to surface in hundreds...
- [http://seattlepi.nwsourc.com/national/136350\\_epa23.html](http://seattlepi.nwsourc.com/national/136350_epa23.html) By JOHN HEILPRIN THE ASSOCIATED PRESS, August 23, 2003

## More regarding the toxic 9-11 dust

- “James Connaughton, chairman of the environmental council, which coordinates federal environmental efforts, said **the White House directed the EPA to add and delete information based on how it should be released publicly...**”
- 
- **“It was much more important to open up Wall St. than it was to worry about our health,”** said former city councilperson.. Kathryn Freed... **“We’ve known it was a cover-up since the beginning,”** Jain said [president of Battery Pk Residents Coalition].

Downtown Express, “Residents Angry,” August 19, 2003.

## ***“White House Misled City on Post-9/11 Health Issues”***

**By Laurie Garrett, Newsday August 22, 2003**

- “Language in an EPA draft stating that asbestos levels in some areas were three times higher than national standards was **changed** to “slightly above the 1 percent trigger for defining asbestos material.”
- **This sentence was added to a Sept. 16 press release: “Our tests show that it is safe for New Yorkers to go back to work in New York’s financial district.”**
- A warning on the importance of safely handling Ground Zero cleanup, due to lead and **asbestos exposure**, was **changed** to say that some contaminants had been noted downtown but “the **general public should be very reassured** by initial sampling.”
- New York’s leaders responded with dismay.
- Rep. Jerry Nadler (D-Manhattan) called for a Justice Department investigation. **“That the White House instructed EPA officials to downplay the health impact of the World Trade Center contaminants due to ‘competing considerations’ at the expense of the health and lives of New York City residents is an abomination,”** he said in a press release.
- ***“I want an independent investigation to determine exactly who at the White House manipulated the information.”*** D. Yassky
- The White House did not respond to requests for comment.”
- Yassky raises a valid point: there may well be a manipulator or ‘mole’ in the White House... an independent investigation would determine WHO that is... see p. 137.



# 9/11 Dust: 15,000+ Sick

- “The number of people with medical problems linked to the 9/11 attacks on New York has risen to at least 15,000.
- **“On Tuesday, a coroner said the death of a policeman who developed a respiratory disease was "directly linked" to 9/11.”**
- **Problems mount from 9/11 fallout**  
By David Shukman  
BBC News science correspondent
- 4/12/2006



- USA Today article 6/26/2006:

# Values disclosed in 9/11 Toxic Dust incident...

- **Truth?**
- **Caring for others?**
- **Long-term effects?**



[http://wtc.nist.gov/solicitations/wtc\\_awardQ0186.htm](http://wtc.nist.gov/solicitations/wtc_awardQ0186.htm)

- National Institute of Standards and Technology (NIST) contracted ARA to analyze the collapse of WTC 7 earlier this year (2006), with restrictions:
- **“Create detailed floor analyses to determine *likely modes of failure for Floors 8 to 46* due to *failure* of one or more supporting columns (at one or more locations) in World Trade Center Building Seven.”**
- **How about floor 47 and the floors below 8?**
- **“Loose Change, Final Cut” has a very informative, recorded statement by a man who was trapped at floor 8 in WTC 7 due to an explosion below him, he states for the record. Firefighters were able to get him and a companion out of the building before its complete collapse. Such an explosion would weaken the structure below, as is commonly done in controlled demolitions.**
- ***I agree with Professor Kuttler’s challenge to NIST and any serious study of the collapse of WTC 7 – must include a study of what happened below floor 8!  
(See his paper in the Journal of 9/11 Studies.)***

NIST is finally going to look at  
“hypothetical **blast events**,” at least.

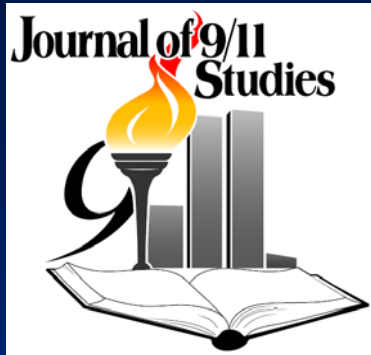
- NIST FAQ, Aug 2006: “NIST also is considering whether hypothetical **blast events could have played a role in initiating the collapse [of WTC 7]**. While NIST has found **no evidence** of a blast or controlled demolition event, NIST would like to determine the magnitude of hypothetical blast scenarios that could have led to the structural failure of one or more critical elements.”

- [http://wtc.nist.gov/pubs/factsheets/faqs\\_8\\_2006.htm](http://wtc.nist.gov/pubs/factsheets/faqs_8_2006.htm)

# If collapse is started, what happens next?

- The NIST final report only takes us to the point where the Tower is “poised to collapse.” ...(NIST, 2005, p. 142; emphasis added.)”

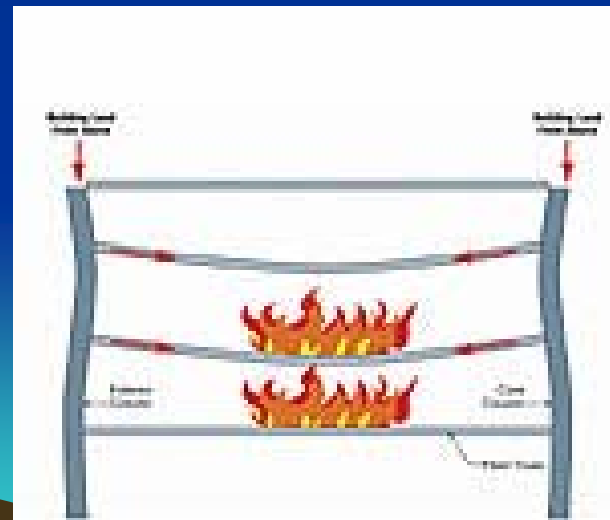




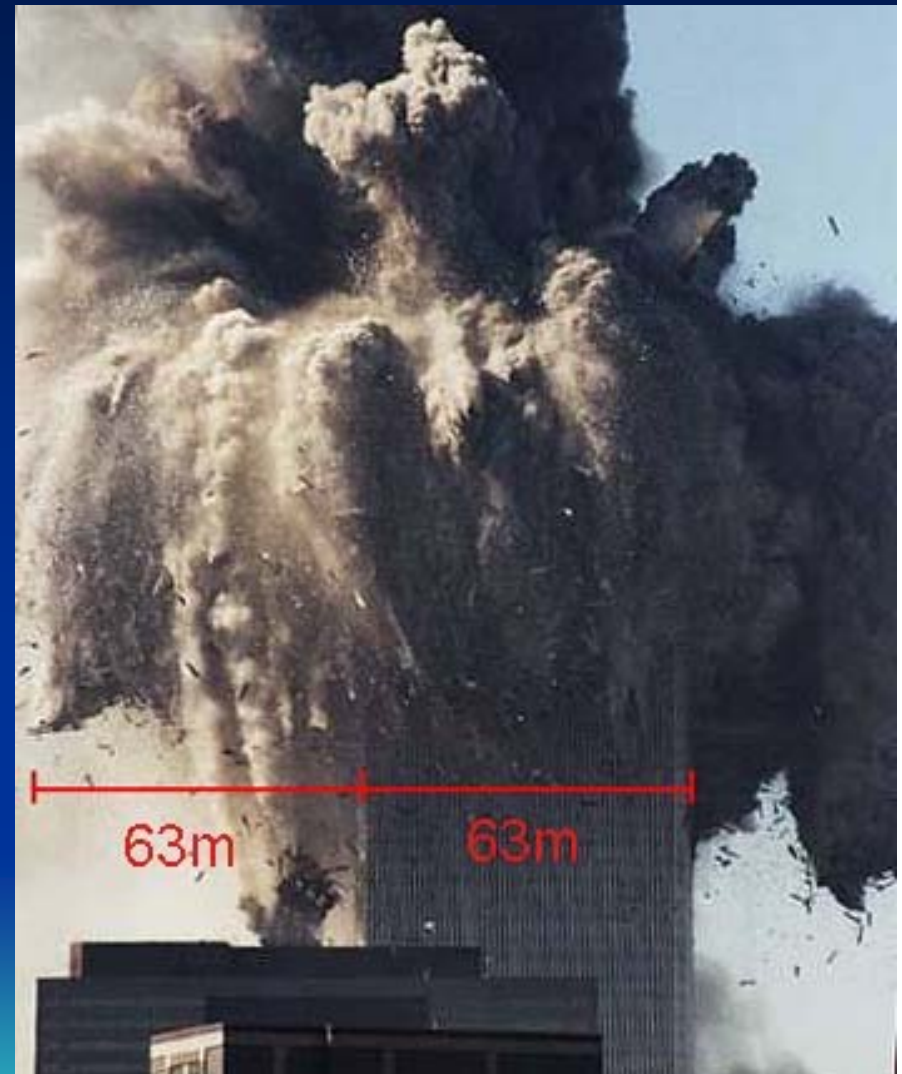
- **Momentum Transfer Analysis of the Collapse of the Upper Storeys of WTC 1**  
**by Gordon Ross**
- “The analysis shows that despite the assumptions made in favour of collapse continuation, **vertical movement of the falling section would be arrested** prior to completion of the 3% shortening phase of the impacted columns...
- **“A collapse driven only by gravity would not continue to progress beyond that point.”**



- Note the forty-seven **interconnected core columns**.
- The Towers were not hollow tubes!
- FEMA drawing of the Towers (below) is misleading: where is the core?



- Pulverization and expulsion of concrete (etc.) REMOVES ENERGY from the system, as does flexing of non-damaged (and not heated) steel columns at lower levels.
- If the collapse is gravity fed only (official story), **then the energy losses will STOP the collapse, according to paper by Gordon Ross, here: [Journalof911studies.com](http://Journalof911studies.com)**
- However, explosives add energy, to produce pulverization and expulsion of concrete and steel members – as observed.
- **Without explosives, only a partial building loss would have happened (based on Laws of Conservation of Energy and Momentum; Ross paper in [Journalof911studies.com](http://Journalof911studies.com))**



- Top ~30 floors of WTC2 observed to rotate and topple over.
- **A thorough scientific analysis will apply Laws of Conservation of Energy and Momentum – and Angular Momentum to see what happens next. (Physics!)**
- **NIST did not do this. Neither did FEMA. We invite them to proceed beyond the point where the buildings are “poised to collapse.”**



## NIST final report is the “official **pre-collapse theory**”...

- “The focus of the Investigation was on the sequence of events from the instant of aircraft impact to the initiation of collapse for each tower. For brevity in this report, this sequence is referred to as the “probable collapse sequence,” although **it does not actually include the structural behavior of the tower after the conditions for collapse initiation were reached...**” (NIST, 2005, p. 80, fn. 12; emphasis added.)
- Again, on page 142, NIST admits that their computer simulation only proceeds until the building is “poised for collapse”, thus ignoring any data from that time on.
- “The results were a **simulation** of the structural deterioration of each tower from the time of aircraft impact **to the time at which the building became unstable, i.e., was poised for collapse.** ... (NIST, 2005, p. 142; emphasis added.)”

Nearly all WTC steel was quickly shipped out, melted down, destroyed... But we are looking for 9/11 truth in the surviving rubble and dust!



Figure 11. Cartoon by Johnny Hart portrays extremely pathological science. Here, the scientist more than overlooks negative evidence; he destroys it. (Reprinted with permission from Johnny Hart and Creator's Syndicate, Incorporated.)

# Please sign petition

- Please sign the petition for release of data held by agencies of the US Government, here:
- <http://www.scholarsfor911truth.org/petition/>
- Photos, videos, molten-metal sample, etc. were obtained at taxpayers' expense. Why is information being withheld from the public? Let us together find out what really happened on 9/11. Surely this pivotal event in world history deserves study and freedom of information!
- Quote from the petition: **“Immediate release of 6,899 photographs and 6,977 segments of video footage held by NIST, largely from private photographers, regarding the collapses of WTC buildings on 9/11/2001 (NIST [report], 2005, p. 81). In particular, all footage relating to the collapse of WTC 7 (including shots before, during and after the collapse) must be released immediately...”**

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