The Real Deal Guests What happened at the World Trade Center on 9/11?

Wayne H. Coste, PE Timothy E. Michel





May 2015 Conversation on the Real Deal With Jim Fetzer

- Previous conversation included:
 - Review of Midwest 9/11 Conference
 - Overview of events at the World Trade Center
 - Discussion of gravity-only building collapses
 - Building descends slower than free fall
 - Energy doing the crushing slows the descent
 - Material ejected outside the structure is in free-fall

"The Real Deal Ep # 51 911 Redux: How Was it Done?" https://www.youtube.com/watch?v=ct11zWfBqyc





Previous Conversation

- Initial stages of destruction of Twin Towers
 - Demolition proceeds at (faster than?) free-fall
 - Agreed that it was not a gravity-only collapse
 - Areas of structure destroyed sequentially
 - South Tower destruction proceeds floor-by-floor
 - Material ejected outside the footprint does not fall and obscure ejections of next floor-below
 - North Tower destruction has demolition proceeding down the centerline of the face of one side





Previous Conversation

- Thermite / nano-thermite
 - Points of agreement
 - By itself demolition velocity not sufficient to pulverize steel
 - Can create temperatures of 4000 degrees F
 - Temperatures sufficient to melt steel
 - Red / gray chips shown to be likely source of iron spheres
 - Iron spheres in dust are not melted steel
 - Shown to be a reaction product of igniting red-gray chips





Today's Topics

- What would evidence for nuclear explosions look like?
 - Sounds of explosions
 - Presence of various elements (Strontium, Yttrium, Uranium, Lithium etc.)
 - Presence of Tritium
- Composite explosives using nano-thermite
- Evidence for Twin Towers aircraft impact





9/11 Eyewitness DVD by Rick Seigel - 2005

- Records from 1.8 miles north-west
 - South Tower mostly obscured by North Tower
 - North Tower demolition seen clearly
 - Corroborates reports of explosions by many witnesses
 - Spire seen clearly before clearly collapsing
 - Audio evidence of explosions
 - Time adjusted to eliminate distance effects
 - Explosions precede the demolition waves





9/11 Eyewitness DVD by Rick Seigel - 2005

- Rick comments on the continuing burning at Ground Zero for months afterwards
 - Ponders what causes the debris to be pulled up out of the ground red-hot
 - Concludes, must have been a nuclear event
- In 2005 no knowledge of thermite
 - Haritt / Jones paper published in 2009
 - Continuing reaction of thermite can explain high and continuing elevated temperatures

NUCLEAR EXPLOSIVES?





Because there is important news the "free press" isn't telling you

What would evidence for nuclear explosions look like?

- Nuclear explosions would
 - Leave a significant audio signal in the record
 - Each nuclear device would be heard distinctly
 - Leave by-products
 - Isotopes many with long half lives
 - Presence of "elements" not indicative
 - Ejections would be simultaneous with audio





Nuclear Explosion Basics

- Nuclear explosions release their energy in nanoseconds
- This fast release of energy is part of what does the damage in a nuclear blast
- Sound created by a nuclear explosion, at a million-times-faster-than-lightning-strike speed, would be much more focused
- This means louder and distinct





Energy Comparison

- An energy comparison of the nuclear explosions and lightning strikes would help refine the question about whether the auditory record provides any evidence of an above ground nuclear explosion.
- While imprecise, this comparison would be informative in answering the question.





Nuclear Explosions Must be Loud

- The explosion of one kilogram of TNT is defined as the release of 4.184 million J
- One lightening strike is ~5 billion J
- Energy in one lightning strike is about equal to 1.2 metric tons of TNT
- A one kilo-ton nuclear device would be approximately equivalent to about 800 simultaneous lightning strikes





Nuclear Explosions Auditory Record

- Nuclear explosions would produce massive sounds loud enough to have been heard at Ground Zero and throughout NYC
- No massive sounds were noted or recorded, making it inconceivable that above-ground nuclear explosions occurred
- DVD "9/11 Eyewitness" recordings not consistent with above ground nuclear

Where is the Nuclear BANG?

- Don Fox's July 18th article in Veterans
 Today says the nuclear explosions were 1
 to 3 kiloton nuclear devices
- Don Fox asserted that a nuclear blast would sound like a rumble to those in the vicinity of the WTC 1and 2 demolitions
- In May, we agreed a large nuclear device in the basement was not supportable





INSERT VIDEO CLIP

Clip1 Rick Siegel – Destruction of North Tower





INSERT VIDEO CLIP

Clip2 Rick Siegel – Time Alignment





Aerial Photos of North Tower







INSERT VIDEO CLIP

Clip 3 Miracle of Ladder 6





Surviving Core Columns North Tower







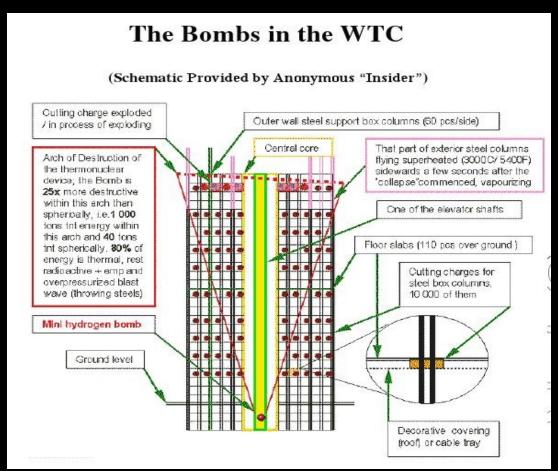
Surviving Core Columns North Tower







Nuclear Bomb in the Basement







Nuclear Hypothesis Dominated by Elements and Pairing Ratios

Barium and Strontium: Neither of these elements should ever appear in building debris in these quantities. The levels never fall below 400ppm for Barium and they never drop below 700ppm for Strontium and reach over 3000ppm for both in the dust sample taken at Broadway and John Streets.

Thorlum and Uranium: These elements only exist in radioactive form. Thorium is a radioactive element formed from Uranium by decay. It's very rare and should not be present in building rubble, ever. So once again we have verifiable evidence that a nuclear fission event has taken place.

Lithium: With the presence of lithium we have compelling evidence that this fission pathway of Uranium to Thorium and Helium, with subsequent decay of the Helium into Lithium has taken place.

Lanthanum: Lanthanum is the next element in the disintegration pathway of the element Barium.

Yttrium: The next decay element after Strontium, which further confirms the presence of Barium.

Chromium: The presence of Chromium is one more "tell tale" signature of a nuclear detonation.

Tritium: A very rare element and should not be found at concentrations 55 times normal the basement of WTC-6 no less than 11 days after 9/11, which is another "tell tale" sign of nukes.

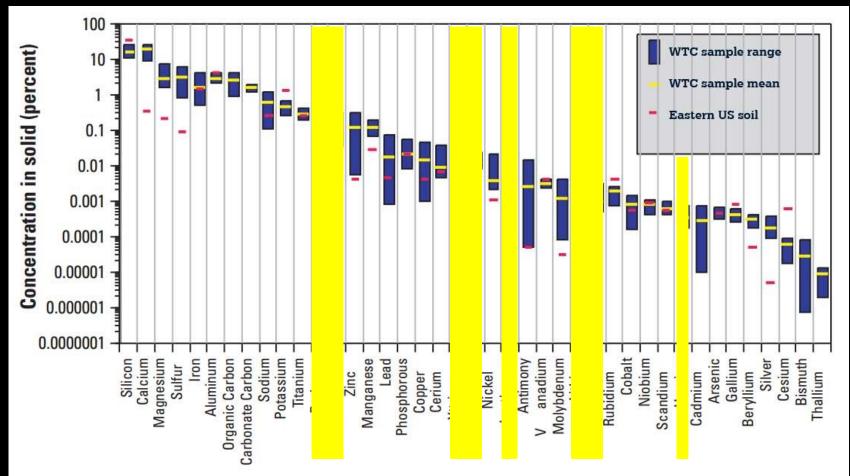




Because there is important news the "free press" isn't telling you

USGS Element Analysis

Eastern US Soil is a "Geometric Mean" and no range is provided here







Distinct Massive Explosions Would Have Been Recorded

- If the Twin Towers had been subject to multiple nuclear blasts, separated even by fractions of a second, our ears, and our auditory recording devices, would have heard each and every one.
- Each would have been a distinct identifiable sound — rather like the grand finale of a fireworks display.





Large Steel Components Not Vaporized







Comparison of Selected Elements WTC vs. Conterminous United States

- Comparison of elements suggest that samples from the WTC dust are very similar to those from the continental United States.
- Elements found in comparable concentrations
 - Barium
 - Chromium
 - Lanthanum
 - Lithium
 - Strontium
 - Thorium
 - Uranium
 - Yttrium





Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States

By HANSFORD T. SHACKLETTE and JOSEPHINE G. BOERNGEN

U.S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 1270

An account of the concentrations of 50 chemical elements in samples of soils and other regoliths



Sources:

http://pubs.usgs.gov/pp/1270/pdf/PP1270 508.pdf

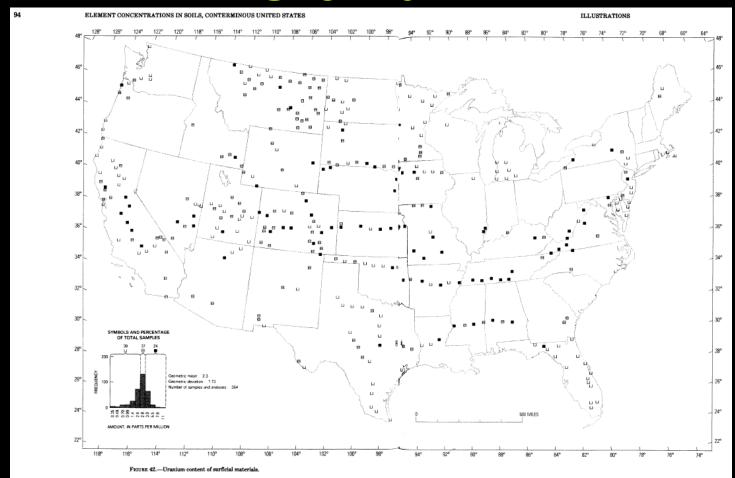
http://pubs.usgs.gov/of/2001/ofr-01-0429/chem1/WTCchemistrytable.html





Because there is important news the "free press" isn't telling you

Element Abundance in Soils Uranium







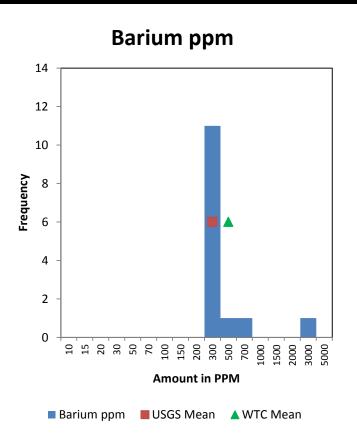
Comparison of Selected Elements WTC vs. Conterminous United States

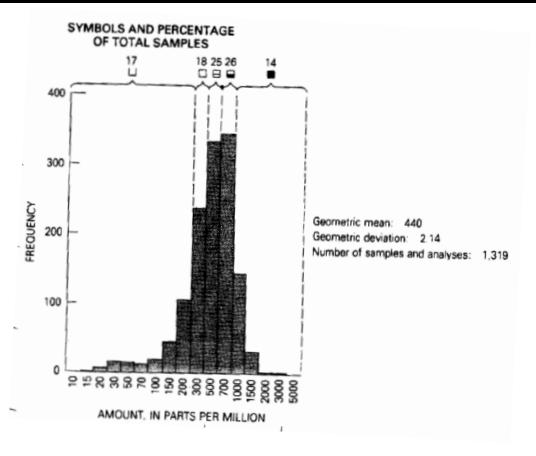
- Graphs show comparison of
 - WTC analysis
 - 1984 U.S. Geological Survey Professional Paper 1270 by Shacklette and Boerngen
- WTC results put on same scale (in ppm) as the Shacklette and Boerngen graphs
 - Allows full distributions to be compared
 - Mean for both sources are shown





Barium ppm



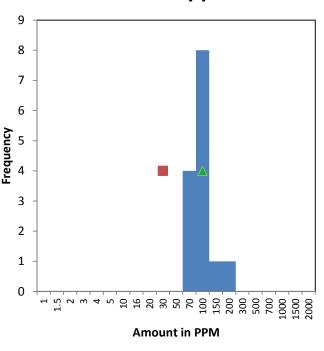




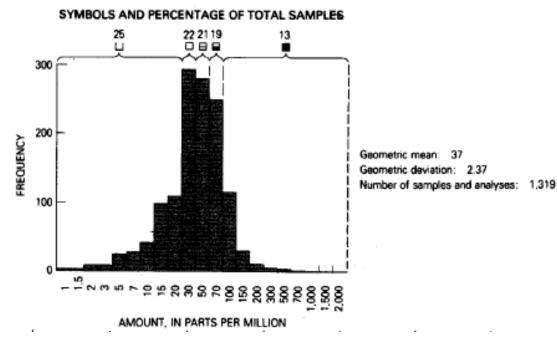


Chromium ppm

Chromium ppm



■ USGS Mean ▲ WTC Mean



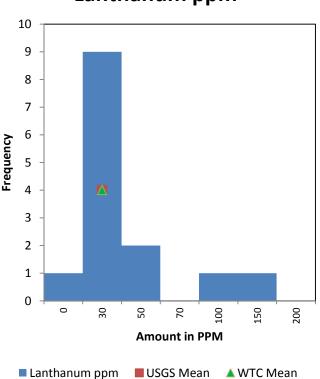


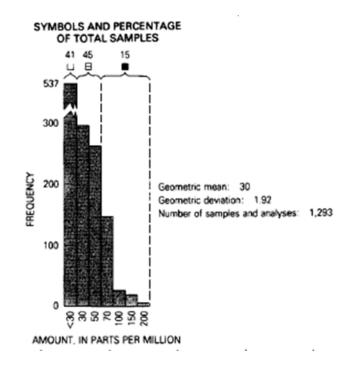
Chromium ppm



Lanthanum ppm

Lanthanum ppm



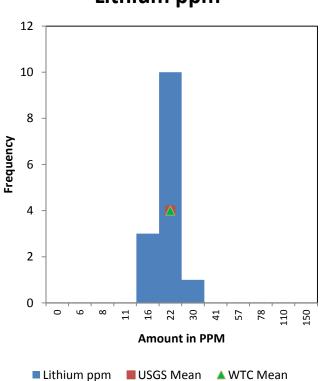


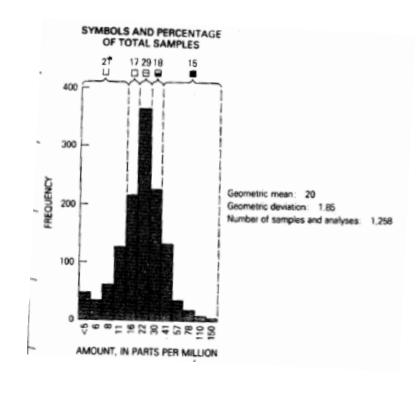




Lithium ppm

Lithium ppm



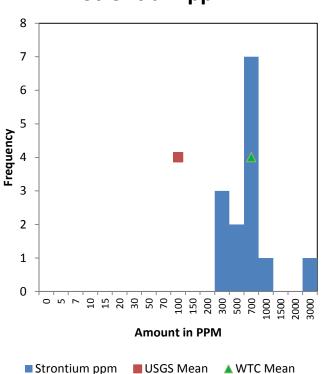




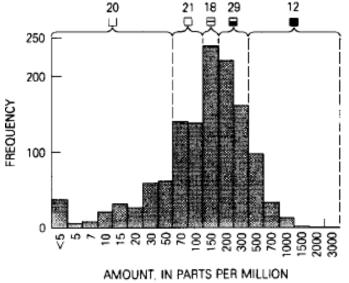


Strontium ppm

Strontium ppm



SYMBOLS AND PERCENTAGE OF TOTAL SAMPLES



Geometric mean: 120 Geometric deviation: 3.30

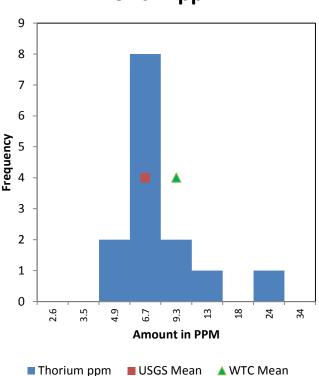
Number of samples and analyses: 1,31



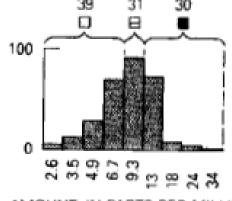


Thorium ppm

Thorium ppm



SYMBOLS AND PERCENTAGE OF TOTAL SAMPLES



Geometric mean:

Geometric deviation: 1.53

Number of samples and analyses:



FREQUENCY

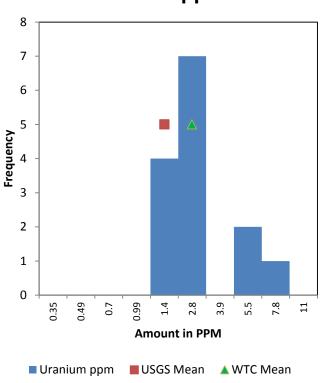
AMOUNT, IN PARTS PER MILLION



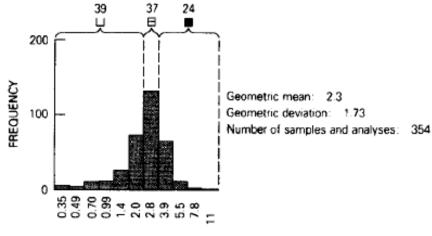


Uranium ppm

Uranium ppm



SYMBOLS AND PERCENTAGE OF TOTAL SAMPLES



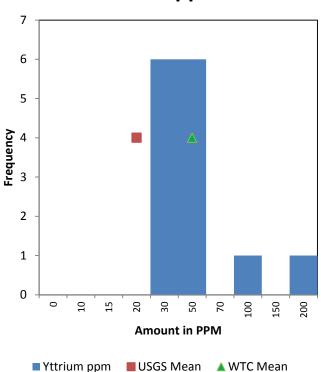
AMOUNT, IN PARTS PER MILLION

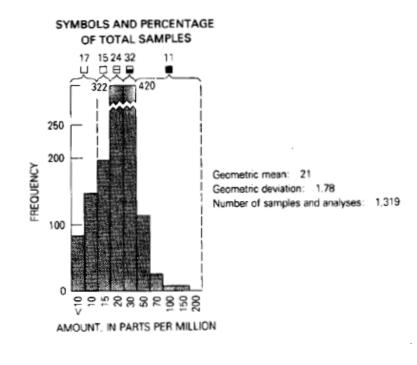




Yttrium ppm

Yttrium ppm









TRITIUM





Reason for the Tritium Study

- Lawrence Berkeley National Laboratory wanted to investigate the release of tritium from manufactured devices
 - Tritium is manufactured for various purposes
 - Watch dials, exit signs, night-vision scopes
- Dozens of night vision scopes in WTC Complex





Recorded NY Tritium Levels

- WTC 6 sample was 3,530 pC per liter
- Excluding WTC 6 basement and sewer
 - Highest value was 210 pC per liter
 - From Brooklyn, Queens and Manhattan
 - Violent dispersion would have contaminated large areas – not just WTC 6 basement
- Even underground nuclear tests created very high levels at the surface
 Source: Elevated tritium levels at the World Trade Center, LBNL et al, 5/14/2002





Tritium – Vermont Yankee

- In studies at Vermont Yankee Nuclear Plant studies 500 pC per liter is considered to be below measurement capability.
- Vermont Yankee had reading of up to 453,000 pC per liter

Links:

http://pbadupws.nrc.gov/docs/ML1415/ML14157A132.pdf
http://dotearth.blogs.nytimes.com/2014/06/12/indian-points-tritium-problem-and-the-n-r-c-s-regulatory-problem/http://healthvermont.gov/enviro/rad/yankee/documents/VY_tritium_gamma_lab_data_2011.pdf





Tritium - Indian Point

- The Indian Point Nuclear Plant upstream from Manhattan
 - Had tritium events in 2000, 2001, other years
 - Highest recorded tritium level was 600,000 pC per liter
 - While these tritium levels at Indian Point are indicative of a problem, they are over two orders of magnitude greater than the WTC6 reading



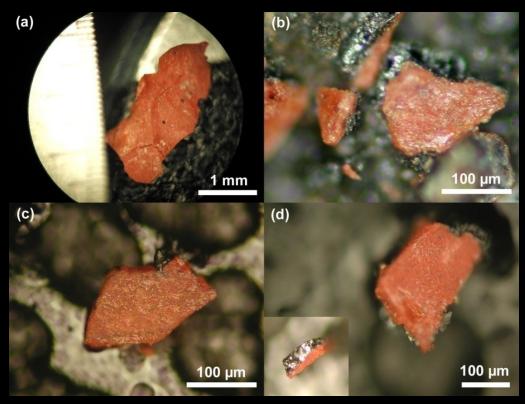


THERMITIC MATERIAL





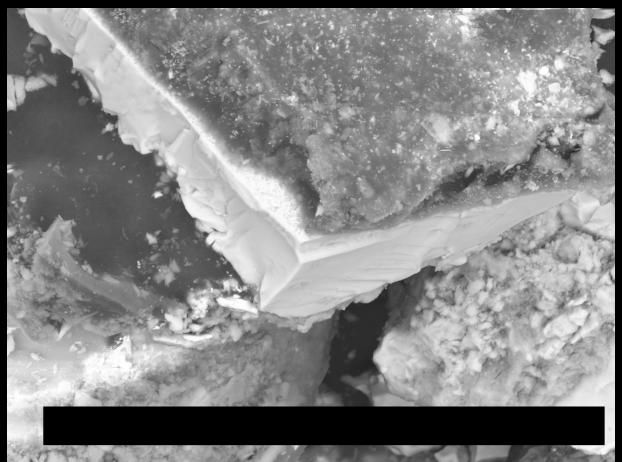
Fragments of Nano-Thermite Found in the WTC Powder







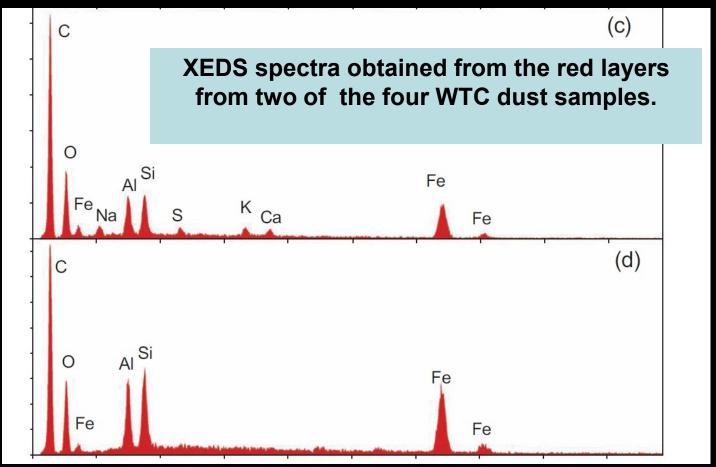
Scanning Electron Microscopy (SEM)







X-ray Energy Dispersive Spectroscopy (XEDS)







Active Thermitic Material

- Advanced Physics was used to identify the composition of distinctive red/gray chips found in samples of the dust produced by the destruction of the World Trade Center
- Source: Active Thermitic Material
 Discovered in Dust from the 9/11 World
 Trade Center Catastrophe,

Authors: , Niels H. Harrit,, Jeffrey Farrer, Steven E. Jones, Kevin R. Ryan4, Frank M. Legge, Daniel Farnsworth, Gregg Roberts, James R. Gourley and Bradley R. Larsen





Differential Scanning Calorimetry (DSC)

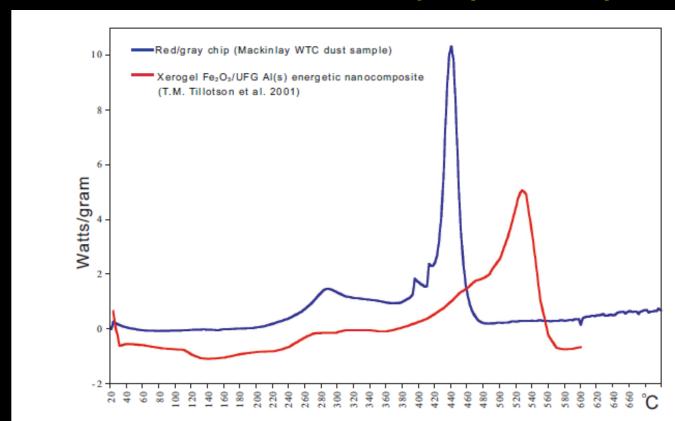
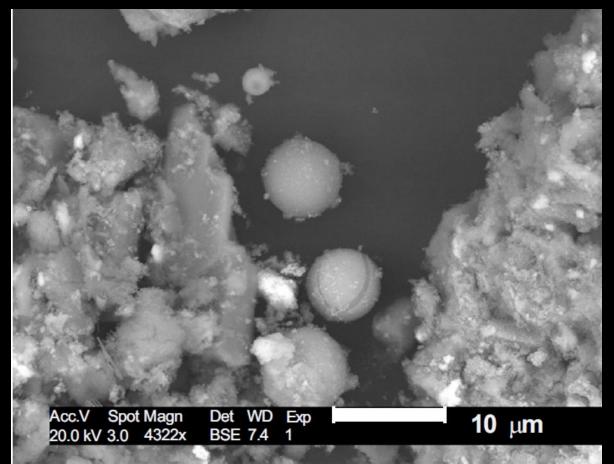


Fig. (29). DSC trace of sample 1 (blue line) compared with DSC of xerogel Fe₂O₃/UFG Al nanocomposite (from Tillotson et al. [28]). Both DSC traces show completion of reaction at temperatures below 560 °C.





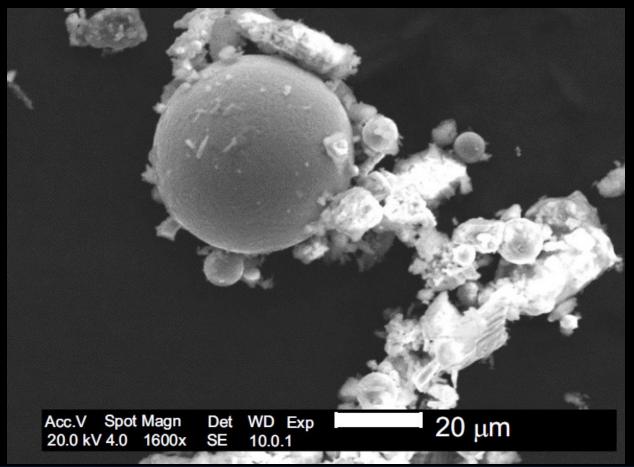
Spheres formed during ignition of red/gray chip in DSC







Spheres extracted from WTC dust







Nanothermite

Detonation Velocity





Fast deflagration to detonation transition of energetic material

Nanothermites (also called metastable intermolecular composites), composed of nanoscale metals and metal oxides, have drawn increasing interests as energetic materials over the past two decades. Nanothermites have twice the energy density of 2,4,6-trinitroluene, and their nanostructures, functions, energy release, and reaction performance are continuously being improved. However, these materials suffer from low pressure because of low gas expansion from the reaction and incapability of deflagration to detonation transition (DDT). Fast DDT is necessary to substantially improve the reaction velocity and output pressure not only of nanothermites but also of other monomolecular organic energetic materials, such as cyclotrimethylene trinitramine (RDX) and octogen. Accordingly, this study aims to produce energetic composites material that are safe, green, and free from heavy metals. A strategy of rapid DDT acceleration is proposed by fabricating quasi-core/shell structured materials of RDX@Fe2O3-Al based on Fe2O3-Al nanothermites. A surface modifying and ultrasonic synthesis technology is also demonstrated. Scanning electron microscopy and X-ray photoelectron spectroscopy characterizations prove that the material comprises an RDX core and an Fe2O3-Al nanothermite shell. Results of closed vessel combustion tests show that the RDX@Fe2O3-Al combustion velocity accelerates to an average pressurization rate of 2.527 MPa/ls. DDT tube tests further confirm that DDT accelerates to a primer explosive level in which the run-to-detonation distances of DDT is below the testcondition limitation (<15 mm). Sensitivity tests also reveal that the RDX@Fe2O3-Al composite has low sensitivity to impact, friction, and electric spark. Therefore, the RDX@Fe2O3-Al composite with a quasicore/shell structure is a potential green and safe fast DDT energetic material that is easy to synthesize and applicable to other quasi-core/shell structures.

2014 Published by Elsevier Ltd.





Los Alamos & Nanothermite

LALP-07

Licensable Technologies

Enhanced Explosive Materials Using Nano-Particulate Metal Fuels

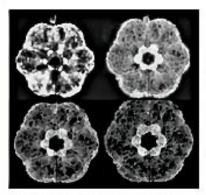
Applications:

- Explosives materials, e.g., fill materials for bullets
- Propellants, e.g., temperatureinsensitive actuators
- Pyrotechnics, e.g., flash devices

Benefits:

- High energy density, highly reactive
- Enables use of liquid fluorocarbon in mixture to completely coat metal particles
- Low sensitivity to changes in ambient temperature





The sequence shows LAX-134, a unique nano-energetic-based TBX material in a configuration designed to enhance turbulent mixing of the explosive's abundant fuel products with surrounding air. Frames are 150 uniques and explosive and explosive to the explosive and explosive to the explosive and ex

Summary:

Metal fluorocarbon mixtures have been recognized since World War II as highly reactive pyrotechnics. Their use as explosives, however, has, until recently, been limited due to the inherently low reaction rates of the metal particles with the fluorocarbon material. Scientists at Los Alamos National Laboratory have discovered that these slow reaction rates can be greatly enhanced by substituting nano-sized aluminum for the conventional micron-sized metal powders, enabling various applications heretofore not possible with metal fluorocarbon mixtures.

Nano-sized aluminum acts as a burning rate modifier. Its high surface area allows for fast chemical reactions

www.lanl.gov/partnerships/license/technologies/

An Equal Opportunity Employer / Operated by Los Alamos National Security LLC for DOE/HRISA.

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Synthesis and Characterization of Mixed Metal Oxide Nanocomposite Energetic Materials

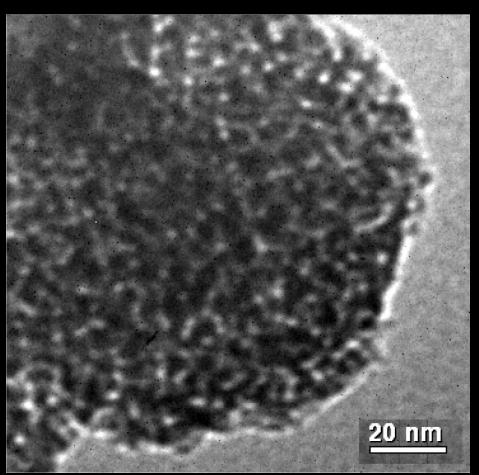
In the field of composite energetic materials, properties such as ingredient distribution, particle size, and morphology affect both sensitivity and performance. Since the reaction kinetics of composite energetic materials are typically controlled by the mass transport rates between reactants, one would anticipate new and potentially exceptional performance from energetic nanocomposites. We have developed a new method of making nanostructured energetic materials, specifically explosives, propellants, and pyrotechnics, using sol-gel chemistry.

Lawrence Livermore National Laboratory, Livermore, California, U.S.A., May 12, 2004





aerosol-based sol-gel method (Aero-sol-gel) for preparing nanoporous iron-oxide nanoparticles with high internal surface area



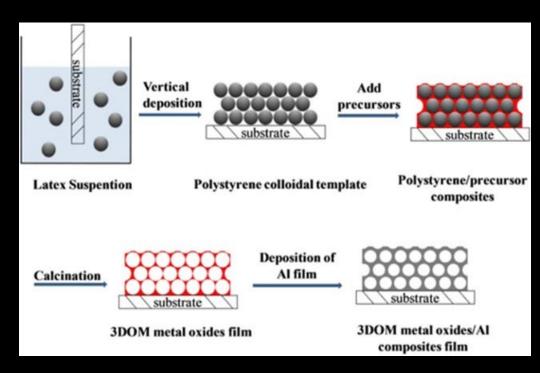
Interest in developing an oxidizer matrix for reaction with nano-aluminum for energy-intensive applications involving explosives and propellants have led to the development of an aerosol-based sol-gel method (Aero-sol-gel) for preparing nanoporous iron-oxide nanoparticles with high internal surface area.

Departments of Mechanical and Chemical Engineering, University of Minnesota, Minneapolis, Minnesota - March 20, 2004





Significantly Enhanced Energy Output from 3D Ordered Macroporous Structured Fe₂O₃/Al Nanothermite Film



School of Chemical Engineering, Nanjing University of Science and Technology, Nanjing 210094, China, School of Chemistry, University of East Anglia, Norwich NR4 7TJ, United Kingdom

A three-dimensionally ordered macroporous Fe₂O₃/Al nanothermite membrane has been prepared with a polystyrene spheres template. The nanothermite, with an enhanced interfacial contact between fuel and oxidizer, outputs 2.83 kJ g⁻¹ of energy. This is significantly more than has been reported before. This approach, fully compatible with MEMS technology, provides an efficient way to produce micrometer thick three-dimensionally ordered nanostructured thermite films with overall spatial uniformity. These exciting achievements will greatly facilitate potential for the future development of applications of nanothermites.





OBSERVING PLANE IMPACTS





Second Plane Hits South Tower







Aircraft Imparts Momentum

- Photographic evidence suggests the towers swayed upon aircraft impact
 - Staehle Tryptic for WTC 1
 - Video for WTC2
- Study of building occupant evcuation include "first cues" of a problem





First Cue Reported

- From: Analysis of First-Person Accounts from Survivors of the World Trade Center Evacuation on September 11, 2001
- Table 4
 - First Cues of Event within the Towers
 - First Cues: Building movement: felt building sway, tremble, jolt
 - WTC 1, 146 / 212 (69%)
 - WTC 2, 30 / 145 (21%)

Source: http://fseg2.gre.ac.uk/HEED/participants_area/work_area/resource_documents/NISTmedia_analysis_2.pdf





First Cue Reported

"The first cues of the event that were mentioned in the accounts were found to differ depending on which tower the person were located. For WTC 1, the first building hit, the most common first cue of the event reported by 146 people (69% of people in that tower) was 'building movement,' such as feeling the building sway and tremble – many thought the building was going to tip over. WTC 2 occupants most commonly reported first becoming aware of the event from 'visual' cues (96 people) such as fire, debris and smoke, most likely coming from WTC 1.

• • •





Wolfgang Staehle Tryptic

- Recorded as part of a living art exhibition
 - Single frames about 5 seconds apart
 - About 6 frames are in the 9/11 Museum
 - Three frames were published in Vanity Fair

Three WTC shots all taken at same location























Wolfgang Staehle Tryptic Frame 1

Base of antenna tower is about 6-8 feet







Wolfgang Staehle Tryptic Frame 2

Shifts about 1/4 of the width of the antenna







Wolfgang Staehle Tryptic Frame 3

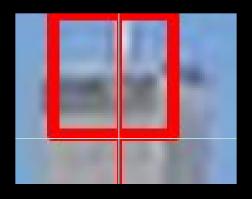




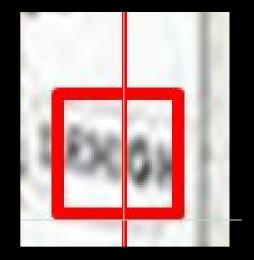


Because there is important news the "free press" isn't telling you

911TruthOutreach.org

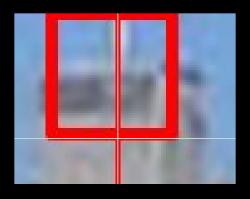


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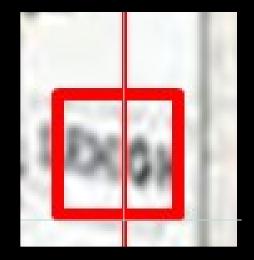






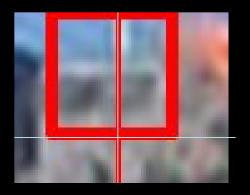


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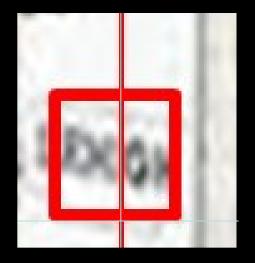








From 3





South Tower Sway

- Building shown to sway approximately 5 feet from building impact
- Compare reference lines





INSERT VIDEO CLIP

Clip2 Tower Sway





The End



