New Info Challenges 9/11 Thermite Claims

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9/11 Truthers say that three World Trade Center (WTC) towers were taken down by controlled demolitions (CDs) and that airplanes and/or fires alone could not have toppled the buildings. However, CDs almost always require the use of high explosives, which produce a series of insanely loud bangs that can be heard for miles. Since the "boom boom boom" of explosives was totally absent in Manhattan on 9/11, Truthers needed to hypothesize a quiet method of doing CDs. That's when thermite, a mixture of aluminum and iron oxide powders, became a basic part of 9/11 Truther mythology. Thermite is quite stable at room temperature, but once ignited it burns brightly and slowly until the chemical chain reaction runs its course, getting hot enough to melt iron and steel in the

Thermite became the CD option the 9/11 Truthers wanted—capable of melting steel columns quietly in secret. Truthers now claim that both red-gray chips and iron-rich microspheres in WTC dust can *only* be explained by thermite, thus providing a "smoking gun" that proves their inside job/controlled demolition hypothesis.

A new report on studies of dust from the destruction of the Twin Towers has been released. The report by James R. Millette, PhD, of Georgia is titled "Progress Report on the Analysis of Red/Gray Chips in WTC Dust." Journalist Chris Mohr, who has a whole series of YouTube videos about 9/11 conspiracy theories, commissioned the study; members of the James Randi Educational Foundation (JREF) helped raise funds for the study, which was issued February 29, 2012.

The study took another look at samples of WTC dust, which Niels Harrit of Denmark and several others (including Steven Jones) purport contains nanothermitic materials ("Active Thermitic Material Discovered in Dust from the 9/11 World Trade Center Catastrophe," The Open Chemical Physics Journal).

Millette's conclusion contradicts that claim: "The red/gray chips found in the WTC dust at four sites in New York City are consistent with a carbon steel coated with an epoxy resin that contains primarily iron oxide and kaolin clay pigments. There is no evidence of individual elemental aluminum particles of any size in the red/gray chips, therefore the red layer of the red/gray chips is not thermite or nanothermite."

If these chips aren't thermite, then what are they? Millette performed several tests, including Fourier transform infrared spectroscopy (FTIR), on the chips and clearly showed that the chips are a mixture of kaolin and epoxy. Kaolin, also called aluminum silicate and china clay, is a platy mineral frequently used as a pigment in paints. Epoxy resins have been used in coatings since the 1940s.

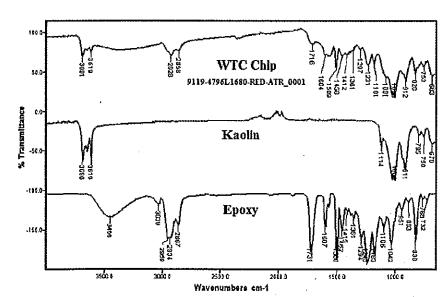
Whatever the chips are, they are *not* thermite, as particles of elemental aluminum are as crucial to thermite or nanothermite as heat and oxygen are to fire. No aluminum, no thermite.

On a related note, in February 2012 I posted a letter² from Rich Lee of the R.J. Lee Group on the JREF Forum. This company's post-9/11 2003 report on WTC dust samples mentioned mi-

croscopic spheres of iron, which 9/11 Truthers have long maintained could only have been formed with thermite, thus proving their controlled demolition/inside job claim. Ron Wieck, who produces an Internet debate program called *Hardfire*, recently asked the R.J. Lee Group to clarify what they thought about the iron microspheres. Rich Lee himself answered (in part):

What about the iron microspheres? The iron has a thin layer of rust flakes that can be easily removed by sticky tape. The iron is heated red hot or hotter and subjected to hurricane force blast furnace like wind. The iron flakes are liberated as small particles and some iron is vaporized. Like drops of water, the iron flakes form molten spheres that solidify and the fume also condenses into spheres, the most efficient geometrical form.... The formation of iron and other type spheres at temperatures obtainable by the combustion of petroleum or coal based fuels is not a new or unique process. These spheres are the same as iron and alumino-silicate spheres in the well-studied fly ash formed from contaminants in coal as it is burned in furnaces. (emphasis added)

The answer to the mystery of the microspheres (i.e., "Iron melts only at temperatures much higher than possible in



Millette's FTIR plot shows that the chips in WTC dust are likely a mixture of kaolin and epoxy, both common ingredients in paints and coatings.

normal fires, so how could microspheres have possibly been formed on 9/11?") is simply that very small metal particles have much lower melting points than their bulk material counterparts (around 900° C for iron nanoparticles, as opposed to 1535°C for bulk iron). This is called the "thermodynamic size effect." The towers contained thousands of computers and electric gadgets. Wires and filaments and meshes from electronics, as well as thin rust flakes and other small iron particles, could all have easily been made into microspheres during the WTC conflagration. To see a vivid demonstration of this phenomenon, watch the video3 on the New Mexicans for Science and Reason's YouTube channel, "theNMSR," in which a normal lighter is used to burn steel wool, creating numerous iron microspheres without any thermite at all!

For now, two principal claims of

the 9/11 Truth movement—that scientists found thermite residues in WTC dust and that iron microspheres in WTC dust prove that thermite was used—have both been found to have no basis in fact.

Notes

- Millette study online: http://dl.dropbox.com /u/64959841/9119ProgressReport022912 _rev1_030112webHiRes.pdf.
- R.J. Lee letter online: http://forums.randi.org/showpost.php?p=8013472&postcount=1329.
- Dave Thomas "Microspheres from Steel Wool" video: http://www.youtube.com/ watch?v=jZ9wSD4Hcys.

Dave Thomas, a physicist and mathematician, is president of New Mexicans for Science and Reason and a fellow of the Committee for Skeptical Inquiry. He is currently a scientist/programmer at IRIS/PASSCAL in Socorro, New Mexico, and also teaches classes in physics, psychology, and critical thinking at New Mexico Tech. He wrote "The 9/11 Truth Movement: The Top Conspiracy Theory, a Decade Later" in the July/August 2011 SI.

Placebo Bands Help Fund Grassroots Skepticism

GURMUKH MONGIA

The skeptical movement is, at its heart, a system of small grassroots organizations. While there are a few large players, most activity comes from small groups of friends acting at the local level, or even individuals acting on their own, to encourage skepticism and critical thinking.

It should come as no surprise that small organizations may experience difficulty raising the funds needed to engage in certain forms of skeptical activism. Even professional-looking flyers can be a little difficult to come by, especially in a time when economic instability creates tight budgets and strict priorities.

Two skeptical entrepreneurs have taken steps to address this lack of funding in grassroots skepticism. Christo-

Measles Cases Up Sharply in U.S.



Measles cases in the United States hit a fifteen-year high in 2011, with 90 percent of the cases traced to other countries that have lower immunization rates, according to the Centers for Disease Control and Prevention's Morbidity and Mortality Weekly Report in April.

Between 2001 and 2010 there had been only about sixty cases of measles per year, but in 2011 the U.S. experienced 222 cases. No one has died of measles in the United States, but about twenty million people contract the measles virus each year worldwide, and about 164,000 die from it, said Anne Schuchat, MD, director of the CDC's National Center for Immunization and Respiratory Disease.

All but twenty-two of the 222 cases last year involved patients who had been infected overseas or caught the virus from someone who had been abroad, the CDC said. The source of the other twenty-two cases could not be determined.

Many of the cases were traced to Europe, where in some countries immunization rates are lower than in the United States. Europe suffered an outbreak of the disease in 2011, reporting more than 37,000 measles cases. France, Italy, and Spain, popular destinations for U.S. tourists, were among the hardest hit.

More than 90 percent of U.S. children have been vaccinated against measles, the CDC said.

"We don't have to have this much measles," Schuchat said. "Measles is preventable. Unvaccinated people put themselves and other people at risk for measles and its complications."

The World Health Organization (WHO) launched a week of vaccination campaigns and public education touting the value of immunizations. It said that with increased immunizations worldwide, global measles mortality has declined by 78 percent from 733,000 deaths in 2000 to 164,000 deaths in 2008. Nevertheless, WHO estimated that 19.3 million children under the age of one—more than half of them in Africa and Southeast Asia—did not receive the diphtheria-tetanus-pertussis (DTP3) vaccine.