New Info Challenges 9/11 Thermite Claims

DAVE THOMAS

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 process.

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."[1] 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.*"

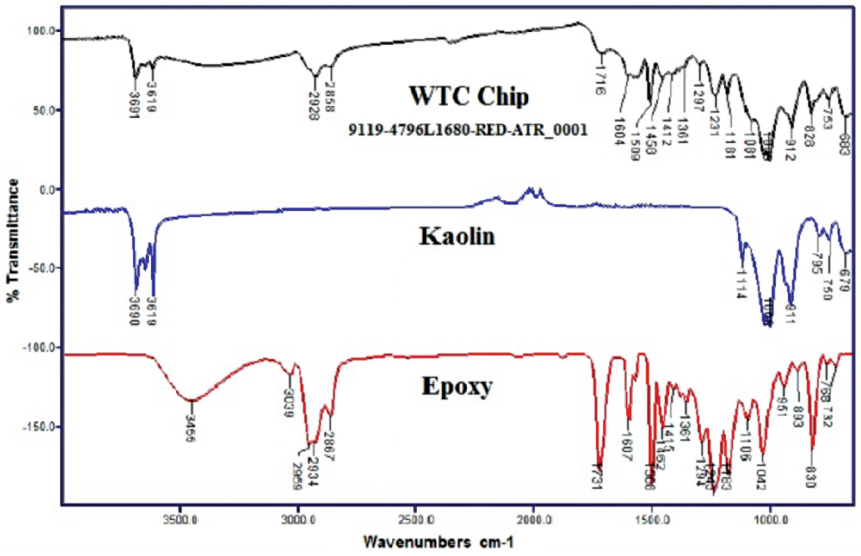
If these chips aren't thermite, then what are they? Millette performed several tests, including Fourier transform infrared spectroscopy (FTIR), on the chips and clearly showed that the chips are a mixture of kaolin and epoxy. Kaolin, also called aluminum silicate and china clay, is a platy mineral frequently 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 letter[2] 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 microscopic 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 video[3] 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

1. Millette study online: http://dl.dropbox.com/u/64959841/9119ProgressReport022912_rev1_030112webHiRes.pdf.
2. R. J. Lee letter online: http://forums.randi.org/showpost.php?p=8013472&postcount=1329.
3. 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.

pher Brown of the podcast *Meet The Skeptics* (meettheskeptics.libsyn.com) and Travis Roy of the Granite State Skeptics (granitestateskeptics.org) have joined together to become the North American distributors of the popular Placebo Band (placebobandstore.com).

Brown and Roy wanted the proceeds from their sales to go toward some form of social good. They donated the proceeds from their first batch of sales to the charity Autism Speaks. Now they're looking for some grassroots skeptical causes to support, and they've already participated in two very worthy ventures.

When SKEPTICAL INQUIRER Deputy Editor Ben Radford wanted to protest Sylvia Browne's performance in Albuquerque, New Mexico, last year by printing up a pair of large vinyl banners informing the public of Browne's criminal record, Placebo Band North America, among other private donors, promptly contributed to the cause, defraying some of the project's costs.

Brown and Roy also responded to a request for funds to help create and distribute a skeptical book for children by Kitty Mervine, who contributes to the *She Thought* blog (shethought.com) and advocates scientifically based support for people who believe they've been abducted by aliens through her Bad Alien website (badalien.org). Mervine has also written a number of skeptical stories for children ages three to five, a market that she believes is underrepresented in skeptical children's literature. One story from the book, "Otterly-Impossible," tells the story of three otters that love to swim in such a way that they are often mistaken for a sea monster. Placebo Band North America donated to Kitty's efforts, distributing copies of her book for free to children attending skeptic camp.

Now Brown and Roy are looking for more grassroots skeptical projects to become involved with. Anyone who knows of a local skeptical organization or individual that could use a small donation for a specific activity related to skeptical activism is encouraged to contact either Christopher Brown (meettheskeptics@aol.com) or Travis Roy (travis@granitestateskeptics.org) with a full explanation of the project, including its overall goal and a list of the project's participants. Placebo Band North America will consider all requests and will be happy to donate their money to a worthy cause.

Gurmukh Mongia is a computer scientist working in the field of web development. He is a graduate of Niagara College of Applied Arts and Technology, where his interest in critical thinking led him to take additional courses in statistics and public disinformation. He currently operates a blog and podcast related to critical thinking, The Dumbasses Guide To Knowledge (www.dumbassguide.info).

Capital Punishment Research Inconclusive, NRC Reports

Research to date on the effect of capital punishment on homicide rates is not useful in determining whether the death penalty increases, decreases, or has no effect on these rates, says a new report released April 18 from the National Research Council.

The committee that wrote the report evaluated studies conducted since a four-year moratorium on the death penalty was lifted in 1976; it found that the studies do not provide evidence for or against the proposition that the death penalty affects homicide rates. These studies should not be used to inform judgments about the effect of the death penalty on homicide and should not serve as a basis for policy decisions about capital punishment, the committee said.

The lack of evidence about the deterrent effect of capital punishment—whether it is positive, negative, or zero—should not be construed as favoring one argument over another, the report stresses. "Fundamental flaws in the research we reviewed make it of no use in answering the question of whether the death penalty affects homicide rates," said Daniel S. Nagin, the Teresa and H. John Heinz III University Professor of Public Policy and Statistics at Carnegie Mellon University and chair of the committee that wrote the report.

Anti-Evolution Bill Becomes Law in Tennessee

A bill that encourages teachers to present the "scientific strengths and scientific weaknesses" of topics that arouse "debate and disputation," such as "biological evolution, the chemical origins of life, global warming, and human cloning" has now become law in Tennessee.

Scientists and science educators see such bills as thinly disguised attacks on evolutionary science and other scientific topics that trouble religious conservatives.

The bill became law April 10, 2012, without the governor's signature. Governor Bill Haslam declined to sign it, expressing reservations about its value, but apparently realized a veto would be overridden by a majority vote in both chambers. The bill had passed both chambers by a 3-to-1 margin.

Haslam said in a statement:

> I have reviewed the final language of HB 368/SB 893 and assessed the legislation's impact. I have also evaluated the concerns that have been raised by the bill. I do not believe that this legislation changes the scientific standards that are taught in our schools or the curriculum that is used by our teachers. However, I also don't believe that it accomplishes anything that isn't already acceptable in our schools.... Good legislation should bring clarity and not confusion. My concern is that this bill has not met this objective. For that reason, I will not sign the bill but will allow it to become law without my signature.

The bill had been opposed by the state's major newspapers and state and national civil liberties, educational, and scientific groups.

"Telling students that evolution and climate change are scientifically controversial is miseducating them," said Eugenie C. Scott, executive director of the National Center for Science Education. "Good science teachers know that. But the Tennessee legislature has now made it significantly harder to ensure that science is taught responsibly in the state's public schools."