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Additional Plasmoid Marks on Electrolysis Cells

May	16,	1997	Are	These	Plasmoid	Marks?
For additional information, see: <u>Subjects / Plasmoids</u> .						

In an earlier article titled "Photographs of Some Components of an Electrolysis Cell(1)," there appeared several pictures of markings on the components of an electrolysis cell (nickel-plastic Run #8) that seem that they could be markings of what are called plasmoids or EVs. These plasmoids are actually microscopic ball lightning. Similar markings and other markings that also seem to be plasmoid markings have been found on other cells also. Pictures of the components of nickel-plastic Run #8 and other cells are shown here. There are many other pictures like these which show plasmoid marks. These pictures are evidence of the production of plasmoids by electrolysis devices, and is evidence of the role of plasmoids as the anomalous phenomena in such devices.

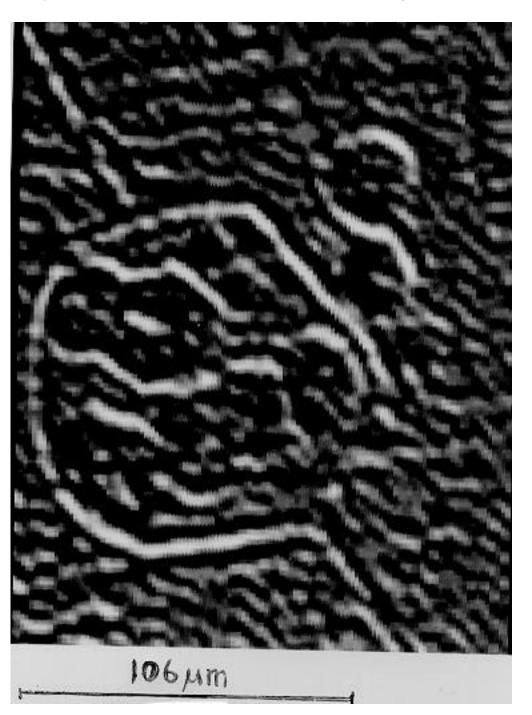
Jim Reding verbally gave me permission to publish my ideas and the pictures I have taken in any way I want to. The CETI company does not support the publishing of my ideas or accept them. They do not agree with them. I am not in the Ceti company. I have scores of high quality microscopic pictures of various markings of various cells that show a variety of important phenomena. I would like to put up many of these pictures. Would anyone be interested in putting up articles or pictures?

Citations

1)E. Lewis, "Photographs of Some Components of an Electrolysis Cell," web page article on the INE Web Site, www.padrak.com/ine, March 1997.

Picture 9: Ring Marks on Lexan of Nickle-Plastic Cell #8

Grayscale of anomalous marks on Lexan, Magnification x400



The marking is about 106 micrometers wide. It shows internal features of rings. This marking was on the Lexan casing of Nickle-Plastic Cell #8(1,2). Three pictures in the prior web page article were also from the same cell. Plastic beads were coated with nickle by sputtering.

This marking is interesting since K. Shoulders may not have produced any like these. T. Matsumoto has shown a few that are somewhat similar. But are these plasmoid marks?

1)G. H. Miley and James A. Patterson, "Nuclear Transmutations in Thin-Film Nickel Coatings Undergoing Electrolysis," **2nd International Conference on** Low Energy Nuclear Reactions, College Station, Texas (September 13-14, 1996).

2)G. H. Miley et al., "Quantitative Observation of Transmutation Products Occurring in Thin-Film Coated Microspheres During Electrolysis," **Proceedings of the ICCF-6, Hokkaido, Japan, (October 14-17)**.

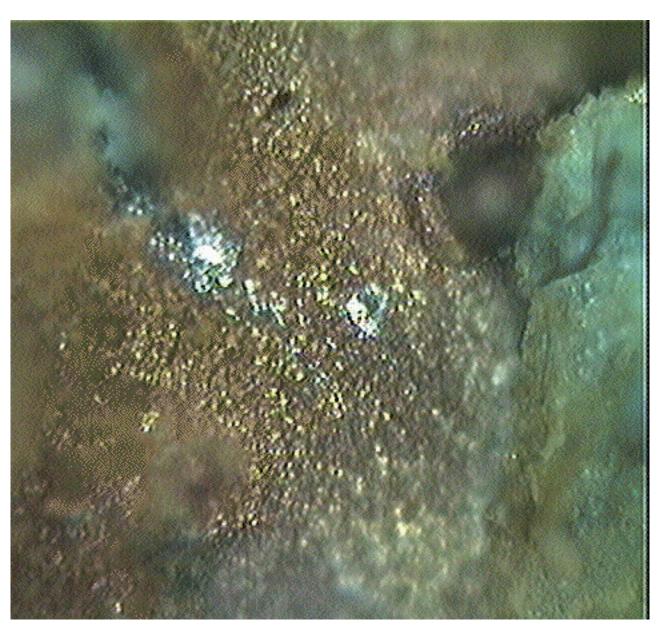
Picture 10: Another Possible Anomalous Marking on Lexan, for Comparison

Ni/Plastic Cell #8, Magnification x200

This is more than 100 micrometers wide. Grayscale picture.

Picture 11: Pit on Reverse Side of Cathode, Magnification x400

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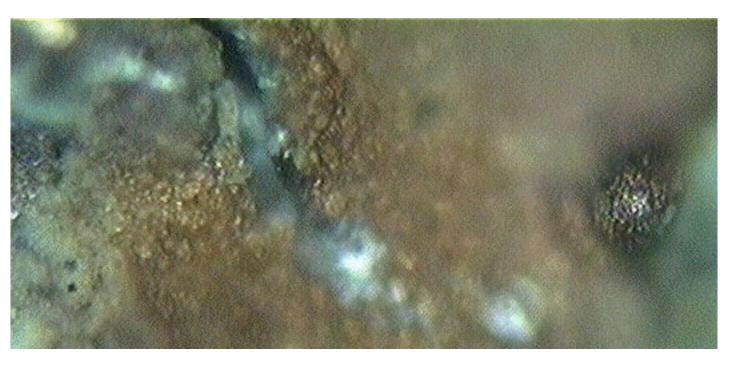
One of the anomalous behaviors of both plasmoids and ball lightning as described by K. Shoulders, Matsumoto, and many ball lightning researchers is the boring of holes or tunnels in materials. These bore holes are significant evidence not only of plasmoids but of a fundamentally anomalous physical behavior of objects.

Numbers of relatively deep microscopic pits are visible on the back side, the side that faced away from the beads, of the titanium plates that held the beads of nickle-plastic run number 8. The titanium plates were the anode and cathode for the cell. There seem to be fewer such holes on the bead-side of the anode and cathode. Matsumoto and others such as Liaw have found similar anomalous markings that are about the same size that were produced during electrolysis.

Also visible are ditch-like markings that are about as wide as others found by Shoulders and Matsumoto.

Picture 12: Physical Features at the Bottom of the Pit Shown in Picture 11

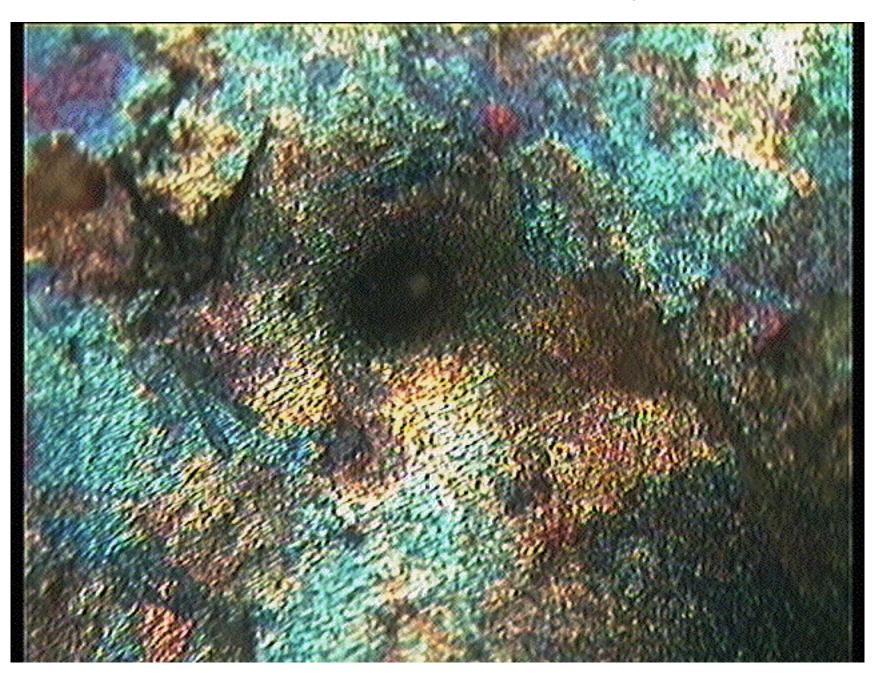
Reverse Side of Cathode of Ni/Plastic Cell #8, Magnification x400



The same pit as shown in Picture 11 is shown here with the microscope focused at the bottom of the pit. It would be interesting to determine how deep such pits are, as Silver and Dash et. al had done. Little pits, and perhaps very tiny ring or groove marks are visible.

Picture 13:

Reverse Side of Cooked Titanium Plate Anode of Ni/Plastic Run #8, Magnification x200

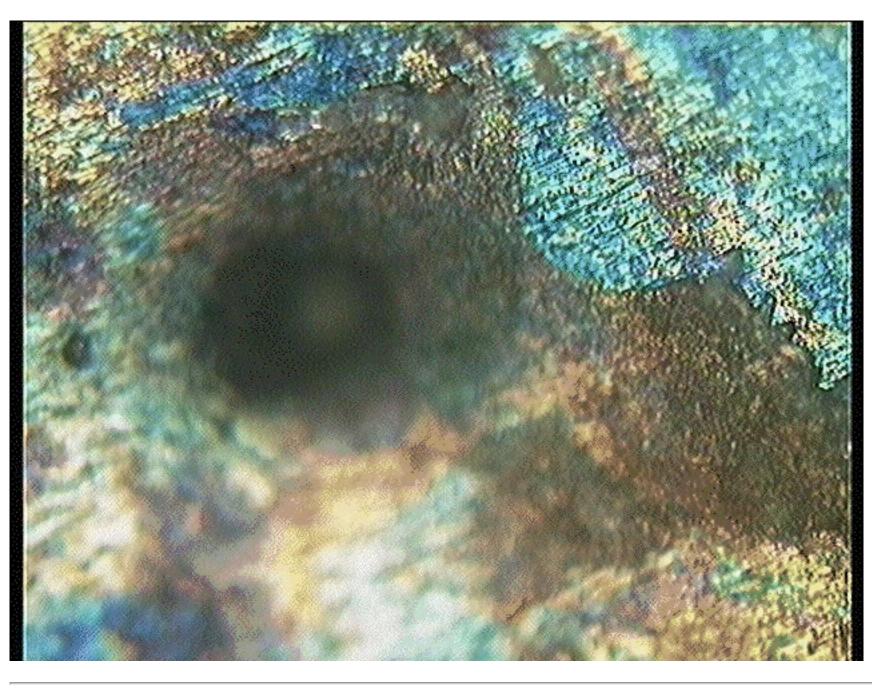


The next 2 pictures are all of the same pit.

Another anomalous behavior of ball lightning is the production of energy above that which would be ascribed to chemical reactions. It would be interesting to understand this behavior. Could it be due to the transformation of atoms, objects, to light and electricity? This was my original proposal. Are the grooves and pits shown in these pictures evidence of such a transformation of material, and also perhaps of elemental transformation? Grooves and pits of various sizes are visible. The sizes are similar to those in the other photographs, usually between 1 and 100 micrometers.

There are many colorful and beautiful features on the electrodes and beads. The colors and the various crystalline forms suggest the presence of various metallic layers and perhaps of minerals of various kinds.

Picture 14: Same Location of Anode as in Picture 13, Magnification x400



Picture 15: Same Pit as in Picture 14, but Focused Closer to Bottom, Magnification x400

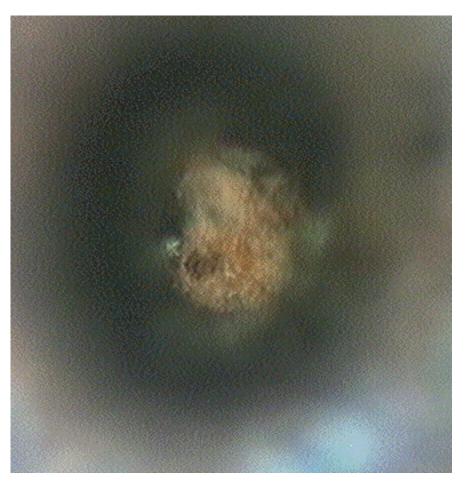
?

The pit is about 200 micrometers in diameter at the rim.

There are interesting marks around the rim like lines or trails. The rim seems to be above the surface of the metal. The pit was surprisingly deep. I was able to focus at several places inside the pit. See next photo.

Picture 17: Same Pit as in Picture 16 but Focused on the Bottom; Plasmoid Ring Mark?

Opposite Side of Cooked Titanium Plate Anode of Ni/Plastic Run #8, Magnification x400



Ring crater or pit and groove marks are visible even on the bottom of this pit. So the markings aren't due to mechanical damage due to handling.

These marks were found on the bottom of the relatively deep pit shown in Pictures 16. The pit is on the titanium anode on the side opposite from the beads of nickel-plastic cell #8. The cell has been described in several articles(1,2). Many other micrometer sized pits are on this side, and there are relatively few on the side that faced the beads. Many other similar pits and ring marks and groove marks were found on the other components of the cell as well. The cell was reported to have been associated with a variety of new elements. The picture was taken by using a digital camera that was attached to a microscope at the U of I. The microspheres in the cell were plastic coated with 650 angstroms of nickel, and the anode and cathode were titanium plates.

The pit itself is about 200 micrometers wide at the surface of the anode, but narrowed down to the white area seen in this picture which is about 100 micrometers in diameter. The ring mark is about 20 or 30 micrometers wide which has been about the regular size of plasmoid marks in electrolysis cells that have been reported by Matsumoto. The groove or ditch marks is like others that have been reported, and is also like grooves left by tornadoes. The grooves are about 10 or 20 micrometers wide. The pit seemed to be relatively deep. It would be interesting to find out how deep the pits are. One wonders whether any of the pits may be tunnels in the plate. The ring marks and other marks were more clearly visible under the eyepiece of the microscope.

The appearance of such anomalous marks in such anomalous pits on electrodes suggests that plasmoids were associated with or caused the formation of the pits. According to various reports of plasmoids and of ball lightning, plasmoids seem to form pits in at least three ways. By burrowing into materials and taking the materials in and converting them, by sitting on the surface of things for a period of time and apparently taking materials up or making them disappear as some luminescent atmospheric plasmoids and human produced plasmoids have been reported to do, and by hitting a surface and swirling around in larger and larger circles and growing larger as they made a cave as was reported in E. Bach's book(3).

The appearance of such marks in electrolysis and discharge cells and in various other devices suggests <u>superconductivity phenomena</u> in such devices. Plasmoids seem to be at least a locus of the cf phenomena, though my theory has been that "cold fusion" is a plasmoid phenomena.

1)G. H. Miley and James A. Patterson, "Nuclear Transmutations in Thin-Film Nickel Coatings Undergoing Electrolysis," 2nd International Conference on Low Energy Nuclear Reactions, College Station, Texas (September 13-14, 1996).

2)G. H. Miley et al., "Quantitative Observation of Transmutation Products Occurring in Thin-Film Coated Microspheres During Electrolysis," Proceedings of the ICCF-6, Hokkaido, Japan, (October 14-17).

3)E. Bach, "UFO's" from the Volcanoes, Hermitage Publishers, Tennafly, NJ, 1993.

Photograph 18: More Pits on the Reverse Side of the Anode of Ni/Plastic Cell #8

Reverse Side of Anode of Ni/Plastic Cell #8, Magnification x200



The grooves are clearer in this picture.

Photograph 19: Metal Layers on Beads of Ni/Plastic Cell #8; Plasmoid Ring Marks?

Partially Flaked Off Bead of Ni/Plastic Cell #8



Are these rings of pits plasmoid ring marks?

Photograph 20: Trail-like Marks, Bumps, and Grooves on Beads of Ni/Plastic Cell #8

Partially Flaked Off Bead of Ni/Plastic Cell #8



The dozens or hundreds of trail or groove like marks discernable here are commonly found on the various parts of various cells. Are these plasmoid marks? A ring mark is visible. Compare to the marks shown already by Bostick and Nardi, Shoulders, Matsumoto, and Silver and Dash et al. If these are plasmoid marks, then apparently there are many microscopic plasmoids produced in such electrolysis devices.

Photograph 21: Slightly Different Focus of Site Shown in Picture 20

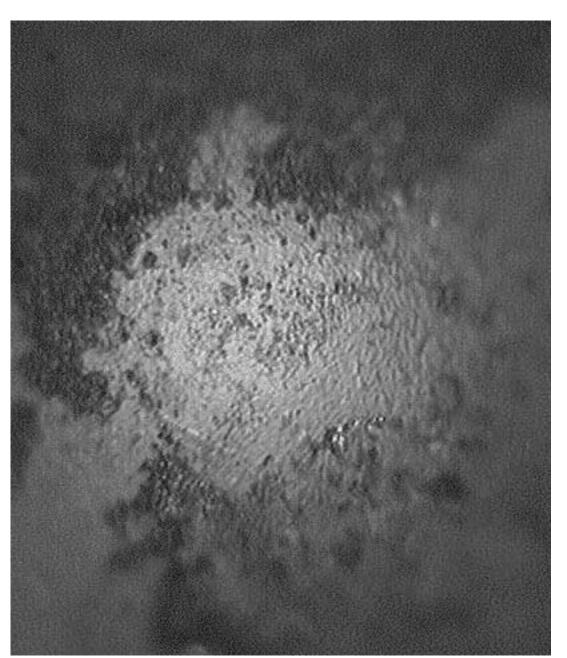
Partially Flaked Off Bead of Ni/Plastic Cell #8



What causes the geometrical patterns and designs of some of the apparent features?

Photograph 22: Similar Plasmoid Marks on Another Kind of Bead

Partially Flaked Off Bead, in Grayscale.



Various kinds of grooves and other plasmoid-like marks are visible on the plastic in this photograph. Various markings that may or may not be particle tracts are also found on the plastic base of the beads and in the clear Lexan plastic casings. Some of the markings do look like particle tracks, but this is questionable.

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Go to the INE Web Site at Subjects/Plasmoids for More Info. About Plasmoids

May 16, 1997,

Revised Sept 2, 1998. This article was revised in September of 1998 in order to correct a few typographical errors and especially to include pictures 15 and 16. Picture 17 was erroneously described as the bottom of the pit shown in 15. www.geocities.com/CapeCanaveral/Lab/4946/ELEWIS9.html