

Re: Carbon Plasma? (was beanstalks)

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From: Earl Colby Pottinger (earlcp_at_idirect.com)

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mmeron@cars3.uchicago.edu :

> In article <40cc405a\$0\$3021\$61fed72c@news.rcn.com>, jmfbahciv@aol.com

> writes:

> >In article <cahe9p\$8jn\$1@gw.retro.com>,

> > gherbert@gw.retro.com (George William Herbert) wrote:

> >>Gordon Couger <gcouger@NOSPAMprovalue.net> wrote:

> >>>"Henry Spencer" <henry@spsystems.net> wrote:

> >>>> Gordon Couger <gcouger@NOSPAMprovalue.net> wrote:

> >>>>> >When the current discharges down the cable it vaporizes and forms

> >>>>> >plasma and

> >>>>> >becomes even a better conductor for the rest of the current. Not only

> >>>>> >destroying you beanstalk but producing an EM pulse that will kill

most

> >>>>> >electrical equipment in several 100 square miles.

> >>>>> Hard to imagine how we could ever have developed electricity, with

> >>>>> every

> >>>>Proper grounding does wondrous things.

> >>I think you missed the point. If electrical discharges of that

> >>nature and magnitude cause damaging EMP, then we'd have lost all our

> >>electrical grids and equipment repeatedly, every summer day in

> >>some parts of the nation.

> >But that happens!

> No, it doesn't. I haven't seen **all** the electrical grid and

> equipment being lost **repeatedly**, **every** summer day, in any place.

> Always read carefully what you respond to.

Nor in the case where present day existing carbon fiber structures are hit by lighting I have never heard of the structures turning to plasma or in most cases even catching fire. The fact is it takes a lot of energy to convert solid carbon in any of it's forms to a conducting plasma.

sci.physics: Re: Carbon Plasma? (was beanstalks)

To make matters worse for this claim of carbon structures conducting electric current, in a good composite material there is minimum contact of the fibers to each other as the goal is to imbed each fiber as completely in the matrix material possible to max transfer of tension between fibers. Fiber to Fiber contact does not transfer tension. Because of this only a small percentage fibers form a conducting path there is a lot of resistance to conducting a current,

Now a question to something I really know nothing about, there have been references to bucky tubes being ballistic conductors and these have only one value resistance regardless thier length. However in the case of beanstalks no-one plans to build bucky tubes the full length of the stalk infact it likely that tubes a few meters in lenght will the maxium length ever needed or used. So if separate ballistic conductors conduct in series does the resistance add up or does it stay the same as a single conducting fiber.

Earl Colby Pottinger

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I make public email sent to me! Hydrogen Peroxide Rockets, OpenBeos, SerialTransfer 3.0, RAMDISK, BoatBuilding, DIY TabletPC. What happened to the time? <http://webhome.idirect.com/~earlcp>