Re: H2 burner

Source: http://sci.tech−archive.net/Archive/sci.energy.hydrogen/2008−06/msg00105.html

- *From*: Monkey Clumps <spacebrain71@xxxxxxxxx>
- *Date*: Sun, 15 Jun 2008 21:08:25 −0700 (PDT)

On Jun 15, 5:10 pm, Williamknowsbest <William.M...@xxxxxxxxx> wrote:

> On Jun 15, 3:26 pm, Monkey Clumps <spacebrai...@xxxxxxxxx> wrote:
>
> > On Jun 14, 8:53 pm, Williamknowsbest <William.M...@xxxxxxxxx> wrote:
> >
> > > On Jun 14, 6:51 pm, Monkey Clumps
> > > <spacebrai...@xxxxxxxxx> wrote:
> > >
> > > > On Jun 13, 10:31 pm, Williamknowsbest
> > > > <William.M...@xxxxxxxxx> wrote:
> > > >
> > > > > On Jun 12, 8:59 am,
> > > > > Monkey Clumps
> > > > > <spacebrai...@xxxxxxxxx>
> > > > > wrote:
> > > > >
> > > > > > On Jun 11,
> > > > > > 9:55 am,
> > > > > > Williamknowsbest
> > > > > > <William.M...@xxxxxxxxx>
> > > > > > wrote:
> > > > > >
> > > > > > > On
> > > > > > > Jun
> > > > > > > 11,
> > > > > > > 12:02
> > > > > > > am,

"Spaceman"
<space...@xxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

"Williamknowsbest"
<William.M...@xxxxxxxxx>
wrote
in
message

news:ebe75388−e9d6−466f−a157−e0c8a403b07e@x

Anyone
who
visits
my
web
site
and
fills
out
the
contact
information
may
request
information
including
such
photos.
http://www.usoal.com

Nice
business.
Must
be
raking
in
money.
:)

−−
James
M
Driscoll
Jr
Spaceman

Its
highly
leveraged
at
present
−
so,
like
Churchill
I
find
I
must
rely
on
allies
I
don't
particularly
trust
or
like!
lol.
But
we
will
prevail,
that's
for
sure.

Hey
William,
have you
seen this
paper?

http://www.hionsolar.com/n−hion96.htm

Please check out a more reliable source

http://gcep.stanford.edu/pdfs/hydrogen_workshop/Schultz.pdf

Thanks. Thats a very interesting link.

And accurate.

They describe a direct−thermal solar to hydrogen process where they achieved 1 to 2% efficiency.

Interesting. Thermal cycles using nuclear or solar sources have demonstrated over 60% efficiency. I have a hybrid cycle using sulfide/ sulfate − that is 55% efficient.

The interesting part was the section near the end talking about efficiencies

> of various
> methods.

> The Stanford paper is a
> more reliable source of
> information.

> Probably more up to date. I don't remember
> seeing a date on the one I
> posted a link to, but apparently the state of
> the art has progressed
> since.

Obviously.

> Apparently,
> the
> solar−to−hydrogen
> efficiency
> obtained
> using
> silicon
> photovoltaic
> cells and an
> alkaline
> electrolyzer
> is about 6%.

> That efficiency has been
> achieved certainly. Is it the
> highest
> efficiency possible? No.
> As I said, I have a hybrid
> system that is
> 55% efficient, which is less
> than the peak of 60% −
> however, my system
> is the lowest cost per watt.

The conversion efficiency for a solar dish Stirling generator combined with an alkaline electrolyzer is 19%.

Stanford and General Atomics report 60% efficiency − my system is only
55% efficient, but has the lowest cost per watt of any other system.

The long term solar−to−hydrogen efficiency goal established by the National Renewable Energy Laboratory is 25%.

This was true 20 years ago. That value has been exceeded recently by more than double.

Now you come along and say you can achieve 55%

thermodynamic
efficiency

Yes. Its a hybrid cycle −
involving BOTH eletrolytic
process and heat
with a sulfide/sulfate
process.

with a
device that
is relatively
inexpensive
to boot.

Yes. The MEMs
PV/Electrolysis 'dot' unit is
0.775 cents per square
millimeter ($547 per 300
mm wafer) and operates at
2500x solar
intensity −which means a
square meter of collector
contains 400 sq mm
and adds $3.10 per square
meter to panel system cost.

How much precision do you need to get the
2500X light beam to hit
right on the little dot?

I'm at about 16% of the limit for this material.

How much precision is possible with a PET
hot press molded shape?

> Well, one can go through the relevant optical calculations, but since
> we can't even get heat engines right, around here, lets take another
> route.

> This isn't an optics issue its a manufacturing issue.

When you manufacture an optical device, its an optics issue. You don't know what you're talking about here. Think clearly about your objection.

> What kind of
> tolerances do you need and what kind of tolerances can the process provide with mass production.

Optical tolerances − surfaces accurate to a quarter wavelength of light − these are routinely mass produced with PET − lens covers, for automobiles, reflectors for flashlights, packaging that looks shiny and bright.

I suggest reading Optical Manufacturing by R. M. Scott specifically Applied Optics and Optical Engineering, Volume III. of that set, edited by Rudolf Kingslake. Published by Academic Press, Inc., a subsidiary of Harcourt Brace Jovanovich, New York, 1965

Please understand, we are use about 1/6th of the tolerances we are capable of to matain a 2400x increase in solar intensity from the solar disk.

> Consider a hot press molded package, or a blow molded water bottle.
> They're both very shiny, and smooth and attractive as packaging
> material because of that. PET is a preferred packaging material
> because of its optical qualities. This derives from their optically
> smooth surface. Plain polyethelyne is dull by comparison − that's
> because the surface is not optically smooth. Obviously, they're
> precise enough.

> I don't know the answer but that sounds like
> a potential design challenge.

Because you don't know, you can't really say − you are merely looking
for roadblocks in an effort to sound smart − as a consequence you
reveal your ignorance. On the positive side, you openly admit your
ignorance which makes you easier to take than others who don't admit
such, or worse yet, aren't even aware of what they do not know.

> The lenses consist of 2
> sheets of 100 micron thick
> PET hot press
> molded into lens shapes −
> and bonded together in a
> water bath to
> encase water − which is the
> lens medium. The focal
> point is inside
> the lens medium. The
> water also reacts at the dot
> when illuminated.

> A square meter of two PET
> films each 100 microns
> thick contains 200
> cc of PET massing 350
> grams costing 0.15 cents per
> gram totalling
> $0.53 per square meter.
> Water cost is nil. Total cost
> is $3.63 per
> square meter. At 1,000
> watts per square meter solar
> influx, and 55%
> efficiency, this generates
> 550 watts for $3.63 − which
> 0.726 cents per
> peak watt.

This is just the cost of the solar panel. The entire system − runs on average $0.07 per peak watt − which is expected to drop to $0.02 per peak watt as volume increases.

Your efficiency is more than double the long term goal.

Long term goal 20 years ago has been doubled recently − you are absolutely right. I would suggest you read a more current, and more reliable source of information − such as Stanford and General Atomics and current DOE literature.

This seems like a huge breakthrough.

It builds on a number of improvements.

As long as you have your designs

protected by
patents,
why don't
you publish
some results
in a
peer−reviewed
journal?

They already have been published as you can see in my reference.

You say
you don't
like the
allies you
have to rely
on.

They're the best ones I have − hell, sometimes, I don't even like my kids − that doesn't mean I don't love them and cherish them.

If
this
breakthrough
is real

Fuck you.

Easy killer.

No, fuck you for gratuitously calling me a liar.

> Bill what crawled up your ass?

> You gratuitously stating I was a liar.

When did that happen?

> Qualifying my statement with an "if"
> is not calling you a liar.

> In the context of your discussion, yes it is. Its like calling a
> black man by the n−word and preceding it with the statement 'with all
> due respect sir, you are a' − qualifying the statement doesn't make it
> any more palatable.

Now you're just being silly. "If" is hardly insulting in this or any other context. If this really bothers you (which I doubt) grow some thicker skin.

> Fact is you don't know one way or the other, so
> to say any more than that is an error for you.

Right, and normal sane people use the word "if" to qualify such statements.

> Obviously erring in a
> way that impunes my honesty is gratuitously calling me a liar.

"erring in a way that impunes my honesty"? What the fuck are talking about? If I was calling you a liar I would tell you your claims are impossible. It seems many in this group have staked out that position, but I am not one of them.

> It is just reflecting the fact that you
> have *not* provided proof

> Bullshit. Patents, prototypes,

where?

> photos by filling out a contact card,
> and test results by filling out a contact card, is far from providing
> zero proof.

Whether you have proof or not, it has not been provided to me at this time, therefore I qualify my statements with an "if". Deal with it.

> > that what you invented is real.

> Screw you.

Now you're just being a dick.

> > Calling you
> > a liar would be stating that I *know* you did not invent what you say
> > you did.

> Yes.

> > I am not making that statement.

> Yes you are.

Ahh yes, the classic strawman argument. Falsely attribute a statement to me and then knock it down.

> > If you can't see that then
> > you are just a belligerent ass who is sorely lacking in people
> > skills.

> Fuck you again. Look sweetheart, making the following pair of
> statements;

> If you have no proof then you are a liar

A statement which I never made. Another strawman.

> You have no proof
>
> Is logically equivalent to saying
>
> You are a liar
>
> If you can't see that, then you are sorely lacking in logical and language skills.

Dude you can shove your strawman. Its just lame.

> You just asserted (wrongly and against copious evidence to the contrary) the second part of the syllogism, after repeating the first. So, fuck you
>
> > Starting in with the "fuck you" is pretty damn immature and does not help make your case.
>
> Fuck you.
>
> > I have given you
> > quality references and valid logic for every step along the way I have
> > published in patent form much of my work and you out of the blue call
> > me a liar. The only appropriate response to someone who gratuitously
> > calls me a liar is fuck you − I mean you don't have evidence what I
> > say isn't real. You feel discomforted by my claims. That's understandable. That's your problem not mine.
>
> > I like your claims.
>
> They're far more than claims, calling them claims after constructing your syllogism is impuning my honesty − needlessly so − since

> Obviously one does not obtain patents or bank financing for projects that are mere claims.

See, now you're just trying to pick a fight for your own amusement. Taking offense to me using the word "claims?" You just used the very word in the paragraph before.

> > They would make the world a better place.
>
> They are making the world a better place.
>
> You are merely attempting to denigrate my efforts here. You are not being fair or open minded, or even acknowledging the references I did give −
>
> > It
> > nice to see that someone has the vision and skills to pursue such things.
>
> Paying lip service after constructing a syllogism that repeats the canard that I am lying is a way of defusing the negativism inherent in what you are saying − but this is merely a tactic to make your syllogism more palatable to the kind−hearted. Unless and until, you disavow your syllogism in light of my accomplishments, I will continue to say fuck you sweetheart.

Since the alleged "syllogism" is nothing more than a lame strawman argument put forth by you, it seems pretty clear that you have nothing to be upset about.

> > When I see third party verification that your claims are true I will feel better still.
>
> How is the USPTO not a third party?

Wow, look at this; another stawman argument. I made no such statement.

> You haven't provided any third party
> confirmation that
> your claims are true.

I have patents. How is the USPTO not a third party?

They might be a third party, but I am interested in a third party that *verified* your claims. The USPTO is therefore not really relevant here.

> Bill, I am an engineer and I have a patent (hopefully the first of many) so I am well aware of what the USPTO requires.

> So, now you say the United States Patent Office cannot be trusted as a third party.

Strawman. The USPTO does not verify claims. They won't accept them if they are clearly impossible, but they don't verify them.

> They don't
> require a working prototype.

> Neither do reporters.

Probably depends on the reporter, doncha think?

> The patent office though requires by law that
> something actually work as advertised.

They don't have the time or manpower to verify claims. Thats why they don't require a working prototype.

> In a comparison between
> reporters and patent reviewers who do you think is more qualified to

> determine this? Why?

Irrelevant question. The reporter may be looking to verify claims.
The USPTO is not.

> > They don't require test results.
>
> Nor are test results rejected. Have you even seen my patents on this subject? The test results are included as part and parcel of the patents. If you would trouble yourself to actually look at the patents, before denouncing the patent process, and impuning the strength or validity of my patent, you would see test results are included.

Very well. I haven't looked with that level of detail.

> > They
> > care if the idea is unique.
>
> Its also a requirement that it work as advertised to deliver the claims made for it. If you can show that a patent does not work as advertised or deliver the benefits claimed for it, then the patent is perforce null and void. Of course this is hard to do if you have valid test results from third parties − which I do.

Well that's the beauty of it. Inventions that don't work are
inherently worthless. That is why the USPTO doesn't waste the time
and manpower on investigating whether or not it actually works. If
they did, you would be required to demonstrate your invention with a
working prototype, and that is *not* a requirement.

> > They don't make sure it works as
> > claimed.
>
> Yes they do. Patents must have utility. That means they must a useful purpose. This reduces to claims made for a patent. Those claims must be accurate. Proving that a claim is not accurate voids the utility of the patent, and excludes that patent from patent protection.

That is correct but it doesn't change the fact that the USPTO does not

verify a given patent works as claimed. If someone can prove a given patent doesn't work then whoever paid for the patent wasted their money, but its not the USPTO's problem.

> Reviewers are trained engineers who are very sharp.
> Einstein reviewed patents for the Swiss patent office. Reviewers for patents are sharper than most reviewers in a peer reviewed publication like Nature or Science. They spend more effort and time than most magazine reviewers and take longer to review the claims more thoroughly. They get paid more too.

I've researched patents in areas where I have some training and from what I have seen there are a lot of very stupid and worthless patents out there. Unless you are clearly breaking some fundamental laws of thermodynamics or physics they are not going to reject you because "it can't work." They are more concerned with whether it is actually a new and unique idea.

> > Having a patent means *nothing* in terms of proving whether your invention works.
>
> Interesting conclusion.

Is it really? If you call up the USPTO office and ask them if they can guarantee that given patent can meet all its claims, the answer will be no.

> You ask for an independent third party − I
> give you one −and without even looking at my patents − you deconstruct and attempt to destroy faith in the third party I name. Obviously, you are not a fair minded unbiased observer. You have an axe to grind.

I have no axe to grind. I want you to be right. But I also know that a patent is no guarantee that something works as claimed. Its as simple as that.

> No, you are wrong in your assertion. Dead wrong. Plainly, having a patent means that the invention works as advertised to provide the utility claimed for it. This is a legal requirement for the patent to be in force.

Yes, a patent doesn't offer legal protection for an invention that doesn't work. That doesn't mean the USPTO has verified that it works.

> More effort is spent, more time is spent, and more money is spent, reviewing patents for issue than is spent on an article that appears in a peer reviewed publication such as Nature or Science.

I doubt highly that, but if you have some relevant cites i would be happy to look at them.

> Of course you already knew that.

> Nonsense. You speak as if they give away patents for the asking. Nothing is further from the truth. So, I know nothing of the sort you describe.

Like I said, unless your claim flies in the face of some basic law of physics or thermodynamics they aren't going to argue with you. I know because no one asked me for any proof that my patented invention work as claimed, yet they awarded the patent. I am now in the process of making it work.

> I spent 3 years and $20,000 for each of my patents, for US coverage, and another $30,000 and another 2 years for PCT coverage in ALL OTHER patent offices throughout the world. It is quite an ordeal, and the

That's great. Your intellectual property is protected. So why are you so unwilling to share real proof with the unwashed masses?

> All we have is you saying that you invented this device that can do these things,

> I have patents. Go to the USPTO web site type in Mook and Solar and see.

Thats great. Now how about something that proves the idea works.

If you would take the trouble to actually read the patent, you would see that NASA's Glenn Research Center in Cleveland verified the operation of high intensity PV devices at 2,400x solar intensity in their space environment chamber. This was instrumental in getting a patent.

Can you provide a link where I can see the patent without paying a service?

but there are no photos,

go tohttp://www.usoal.comandfillout the contact information and
ask for photos I will send you some.

I might do that but I'm not sure why you don't just put the photos up for all to see.

I have my reasons. I want to know who has them, and I want to mark each photoname uniquely so I can track where they end up − until my reasons change.

no test
results,

I will send these, or you can review my patents which include test
results of test units.

no articles anywhere.

Please see the 7th article from the top − I don't know why news
organizations ignore me while giving obvious charlatans top

> billing −
> that's not my problem, and fortunately, I'm not dependent on publicity
> to fund my projects.

> > I would be a fool not to be somewhat
> > skeptical.

> You worry about being made out to be a fool − this is a common concern
> when dealing with new ideas. This is your problem, not mine.

> I am not worried about being a fool.

> You said you would be a fool not to be somewhat sceptical after attempting to say things that show you are sceptical −despite them flying in the face of facts− following a story that you were originally enthused about my efforts, but after speaking with experts you respect, you wish not to be seen as uncritically naive. You said all this, not me. To my mind that tells me you are worried about being perceived as a fool. This is a reasonable concern among those who don't really understand a thing.

Nevertheless, maybe you should be concerned that someone like me, a trained engineer, who likes your ideas, who wants you to succeed, doesn't feel particularly *certain* that that your inventions are everything you say they are.

> > I am justing pointing out that
> > only a fool would not be skeptical.

> After saying you were insufficiently skeptical before − to my mind that tells me − along with your lame attempts at sounding sceptical − that you are worried about being percieved as a naive fool.

Whether or not I am fool is irrelevant to this discussion. What is being debated is whether your shit works like you say it does and

whether you have provided indisputable proof that it does. Just having a patent doesn't cut it.

> But you already know that.

> > This is another propaganda technique − gratuitously changing the focus of attention from your thought process to my thought process − to avoid embarassing attention on you.

I'm sure you know plenty about such techniques, since the strawman argument seems to be your favored tool for debate. I prefer the more straightforward approach.

> > Obviously, me having patents that include test results from NASA, show that products were built and tested and that they work. The fact that some patents in the past have not worked, out of the millions issued, the fact that design patents − ones that do not look at functionality − have broad utility claims − aren't germaine to my patents which are recent, and are issued on the basis of functionality which REQUIRES specific utility claims that are quite solidly based in a working prototype that was tested.

Who is talking about design patents? The USPTO is not going to guarantee that any particular utility patent works. Period. Are you going to argue that point? If not, shut the fuck up about it.

> > Clearly, if you took the trouble to read my patents before attempting to deconstruct and diminish my accomplishment, you would see the fool's errand you are setting yourself up for. Obviously, you care little for the truth here. Had you taken care to be fair and honest you would have at least glanced at my patents and the claims made for them, and the evidence I cite for my claims.

I have read the some abstracts that came up on quick google searches. If you want to provide links to the full patents I will be happy to look at them. But once again, a patent doesn't in itself prove something *works*. If you included test results verified by someone other than than the claimant, that's another story.

> That said, I *hope* your claims are true.

I understand, but just because you lack the innate capacity to figure
this out for yourself

.