

Re: Aluminum Battery?

Source: <http://sci.tech-archive.net/Archive/sci.materials/2004-11/0028.html>

From: Paul Nuber (nuberpaul_at_nandomail.com)

Date: 11/05/04

Date: 5 Nov 2004 02:06:12 -0800

manofsan@yahoo.com (sanman) wrote in message
news:<f144e162.0411041119.2bd480ca@posting.google.com>...
> *Uncle Al* <UncleAl0@hate.spam.net> wrote in message news:<41896D59.B2114BA@hate.spam.net>...
>
>> *"The new, patented technology based on nanoscale electrochemistry will
>> allow production of rechargeable aluminium batteries providing up to
>> 20 times more capacity than current batteries."*
>>
>> *1) Bullshit, up to the "up to"*
>>
>> *2) If "up to means "less than" and "not rechargeable," no problem.*
>>
>> *My Cable ISP gives me "up to" '100 times the speed of a 56K modem.'*
>> *They must have soem awsfually slow 56K modems.*
>
> *Hi Al,*
>
> *I forgot to include this link:*
>
> <http://www.batteriesdigest.com/id301.htm>
>
> *They seem to mention a little more about this, and cite some patent by
> Telcordia, formerly known as Bellcore Communications (spinoff of
> Bell/AT&T?)*
>
> *I surfed around looking for further links, and found*
>
> http://www.arofe.army.mil/Conferences/Recent_Abstract/200th_Meeting/symposia/b1b/0203.pdf
>
> *It mentions the idea of packing Al+++ into a vanadium pentoxide (V2O5)
> aerogel (ie. foamed metal oxide)
> Apparently, this "nanocrystalline" aerogel allows higher surface area
> contact with the Al+++ which means higher power output.*
>

There are many problems for such system:

1. As mentioned in the above military reference, the voltage is low
(about 1 V cf Li/NiO₂ 4.5V)