Re: Regenerative Braking?

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- *From*: "Ron Wyckoff" <rwyckoff@xxxxxxxxxxx>
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John Schutkeker wrote:

> "Ron Wyckoff" <rwyckoff@xxxxxxxxxxx> wrote in news:1141853023.258584.49280 @j52g2000cwj.googlegroups.com:
>
> > In the Prius, which is the best hybrid sys. out there right now, regeneration works at up to 22KW down to 6mph. This provides for slow deceleration, from 60 to 45mph in about 7 seconds. It's actually fairly hard to keep from using friction brakes. On top of that overall efficiency at 22KW is only about 37%.
> >
> > Clearly there is plenty of improvement needed. We need at least 45KW motor generator battery systems and hilgher efficiency super capacitors to get total efficiencies above 50−60%. The batteries and caps that can give this performance are in prototype stage now and we should be able to get them in 2−3 years time.
>
> What kind of volume will the caps take up? It's already hard enough to shoehorn these battery tubs into the cars. Will there be room for the capacitors?

Don't know about super caps, but the new Lithium batteries using nanoparticle techniques have such low internal resistance that you can discharge at 30C without temp. problems and can double the capacity with equal weight. Check out a123.com, and

http://www.dewalt.com/us/articles/press_release.asp?Site=service&ID=1411

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