

## Re: Meanwhile, back in the lab...

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  - *Date:* 18 May 2005 19:01:37 -0700
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Greg, was my last question to you too difficult to answer off hand?

The question I have is this: what happens when you run "few mev" protons or neutrons through single crystals of (say) graphite at small angles in comparison to the plane defined by the sheets of C atoms. With the beam passing orthogonally (the 001 direction) through the common plane defined by the stacked sheets, you'd get one attenuation coefficient. And presumably at right angles to that, so the particles were passing straight down the "alleys" between the sheets (the 112 direction) you'd get another coefficient. In both cases these would be related to the average density of the crystal in the direction of interest. But now, what happens when you tilt the thing just a little in either direction from 112??? Do the particles now go off greatly to one side or the other? And is the effective shielding coefficient per mass a LOT greater in the direction where the particles DON'T go, than you could get with other materials?

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