

Re: Do electrons ATTRACT each other in OPPOSITE direction in 2 wires???

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- *From:* "PD" <TheDraperFamily@xxxxxxxxxx>
 - *Date:* 4 Jul 2006 06:20:06 -0700
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guskz@xxxxxxxxxxx wrote:

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Those familiar with the left/right hand rules for electrons traveling in wires in order to establish each electron's SPIN and each electron's MAGNETIC field polarity direction:

Do two electrons traveling in two unshielded "parallel" wires in "close distance" but in OPPOSITE direction...have magnetic fields (since the polarities are reversed due to spin and right/left hand rules) that cause attraction between both wires (therefore if very close the wires would bend towards each other)??

Currents in opposite directions repel.

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Currents in the same direction
attract.

You mean magnetically of course, but either way the electric charge in a current is always stronger (unless wire is a coil) and always repelling.

Not at all. The attraction can easily be stronger than the repulsion. This is a common demonstration.

PD

You mean in a normal copper wire the magnetic force of a current is stronger than the electric force??????????

Depending on the current, yes, easily.

Can the magnetic attraction of these fields in the wire be stronger than the electron's repulsive charge (if so what causes the magnetic field to get larger)?