

~~T~~ypes of Electric Current – Learn what is electric current and types, symbol. Electric current is of two types
– AC and DC

FAIL

Usually when you ask something, what you not supposed to ask, conversation goes like this:

80:52 Snaps, are you sure there was cash in that bag?

80:55 Yeah. Little Anthony stole it.

80:57 If little Anthony stole it, then he's got it.

80:59 No, you blockhead. He stole it, then he gave it back to me.

81:02 - Why'd he give it back to you? - To buy back the jewels.

81:04 - What jewels? - The jewels he stole from me.

81:06 - He stole jewels from you too? - Yeah, so he could marry my daughter.

81:08 - Lisa. - Not Lisa. Theresa.

81:10 How come nobody's never met this daughter Theresa?

81:12 Because she's not my daughter, capisce?

81:14 Yeah, your daughter's not your daughter.

81:16 And the cash that used to be the jewels is now your underwear.

81:20 - Now you got it! - I got it!

81:22 I don't even know what I'm talkin' about!

I not sure if it is funny when scientists having such conversation.

So, simple question, are there displacement current in (good) conductors ?

Quote 1:

“Displacement current also exists in conductors through which alternating conduction current flows, but in this case it is negligible compared to conduction current. The presence of displacement currents was confirmed experimentally by the Russian physicist A.A. Eichenwald, who studied the magnetic field of the polarization current, which is part of the displacement current. In the general case, the conduction and displacement currents in space are not separated, they are in the same volume.”

* here and in other quotes text highlighted with red color by me

Quote 2:

“It should be noted that the name (displacement current) is conditional, or rather, historically established, since displacement current is essentially a time-varying electric field. The displacement current therefore exists not only in vacuum or dielectrics, but also **inside the conductors through which the alternating current flows**. However, in this case, it is negligible compared to the conduction current. The presence of displacement currents was experimentally confirmed by the Soviet physicist A.A. Eichenwald, who studied the magnetic field of the polarization current, which, as follows from (5.5), is a part of the displacement current in volume.”

Quote 3:

“Of course, the displacement current is not a current at all.”

Quote 4:

“Flux behaves like a current”

and to conclude this

Quote from (5)

“These waves are light waves and unlike other waves you are familiar with, they require no medium to support their propagation.”

with small addition from me: light/EM waves are transverse and can propagate *only thru solid* media :)

References:

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5. by Edward M. Purcell David J. Morin Electricity and Magnetism

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10. 3.1 Displacement Current

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12. Is light a transverse wave?

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