From: [neo@theskepticarena.com](mailto:neo@theskepticarena.com)  
To: [marcin.kucharczyk@ifj.edu.pl](mailto:marcin.kucharczyk@ifj.edu.pl)

Date: Sat, February 25, 2017 9:25 am

**In the article it says:**

**"*When a particle encounters its antiparticle,***

***there is a great likelihood of mutual annihilation,***

***i.e. a process in which both particles completely transform into energy*."**

**Question:**

**What evidence is there,**

**that particles can completely transform into energy?**

**neo**

[**http://theskepticarena.com**](http://theskepticarena.com)

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From: [neo@theskepticarena.com](mailto:neo@theskepticarena.com)

To: [marcin.kucharczyk@ifj.edu.pl](mailto:marcin.kucharczyk@ifj.edu.pl)

Date: 2017-03-06 18:34,

**Marcin,**

**Have you located any of that evidence that you were asked for, yet?**

**If it will help, I can rephrase the question:**

**Do you have evidence that particles can even "partially" transform into energy?**

**neo**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

From: Marcin Kucharczyk

To: [neo@theskepticarena.com](mailto:neo@theskepticarena.com)

Date: Mon, March 06, 2017 10:32 am

E.g.  e+ e- -> gamma gamma

Marcin Kucharczyk

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**From: neo@theskepticarena.com**

**To: Marcin Kucharczyk**

**Date: Mon, Mar 06, 2017 9:26 pm**

**Marcin,**

**I asked you for evidence to support your assertion**

**that particles can transform into energy.**

**I'm not sure why you think**

**"e+ e-  ->  gamma gamma"**

**is an answer to my question.**

**I have no problem if you need to ask around**

**to get assistance in answering my question.**

**neo**

[**http://theskepticarena.com**](http://theskepticarena.com)

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

From: Marcin Kucharczyk

To: [neo@theskepticarena.com](mailto:neo@theskepticarena.com)

Date 2017-03-08 05:38

**Marcin Kucharczyk wrote:**

***Dear Neo,***

***Gamma means photons which are pure energy!***

***I was not answering for long because the question was so simple***

***that I thought that you will find the answer easily by yourself,***

***e.g. on wikipedia***

-----

**Marcin, let's use your own suggested source, Wikipedia:**

[**https://en.wikipedia.org/wiki/Photon**](https://en.wikipedia.org/wiki/Photon)

**Do you see anywhere on that page**

**where it says that photons are pure energy?**

**Unless I read it wrong, it says the exact opposite.**

**It clearly states that a photon is an elementary particle.**

**So my question to you still stands:**

**Do you have any evidence that particles**

**can even "partially" transform into energy?**

**neo**

**Original article:**

[**https://www.eurekalert.org/pub\_releases/2017-02/thni-fto022217.php**](https://www.eurekalert.org/pub_releases/2017-02/thni-fto022217.php)

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

From: Marcin Kucharczyk

To: neo@theskepticarena.com

Date: Tue, Mar 07, 2017 11:16 pm

Marcin replied:

*Dear Neo,*

*Yes, the photons are massless, they are pure energy.*

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**Marcin,**

**You completely ignored my reply, didn't you?**

**Did you address the fact that your own source, Wikipedia,**

**contradicted your claim that photons are pure energy?**

**No. You did not.**

**Did you think that no one would notice that you did not explain why your own reference contradicted you?**

**And if massless particles are pure energy as you asserted,**

**what are particles with mass? Impure energy?**

*Marcin continued:*

*Let's stop this discussion now. I do not have time to continue...*

**Since it is clear by now that you cannot defend your claim that *particles transform into energy* after being given multiple opportunities to do so, there doesn't seem to be much point in continuing.**

**That's really all I, and everyone on the CC list, needed to know.**

*Marcin wrote:*

*Maybe the people you mentioned in cc may help you to understand this.*

**But they haven't Marcin.**

**However, if you'll take a closer look at the CC list, you might notice that I've added about a dozen new names of famous scientists from NOVA.**

**Who knows, maybe one of them will come to your rescue and provide the evidence that you can't seem to find?**

**But it is more likely that they have no more respect for science communicators who misrepresent science than I do. So you are probably on your own.**

**That's why I agree that your decision to bail out of this debate was probably your wisest course of action.**

**\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

From: Marcin Kucharczyk

To: neo@theskepticarena.com

Date: Wed, Mar 08, 2017 12:17 am

(**An hour later, after Marcin had calmed down a little, he fired off another email. I had not yet responded to his email from an hour earlier, so he will receive both of these tonight**)

*Dear Neo,*

*To learn a little bit more about the particle physics I would recommend some accessible literature, e.g. : D.H. Perkins, Introduction to High Energy Physics, Addison-Wesley, London, 1982.*

*Mark Thomson, Modern particle physics, New York: Cambridge University Press (2013), ISBN: 9781107034266. INSPIRE-1326857.*

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**Thanks Marcin.**

**I've learned that you don't care much for answering questions, but I'll try one more question anyway:**

**After seeing what that "selected reading list" above has done for you ...**

**why would I waste my time?**

**neo**

**http://theskepticarena.com**