

Re: fission question

Source: <http://sci.tech-archive.net/Archive/sci.physics/2004-07/8533.html>

From: Steven Sharp (*sharp_at_cadence.com*)

Date: 07/26/04

Date: 26 Jul 2004 15:29:55 -0700

puppet_sock@hotmail.com wrote in message
news:<c7976c46.0407260611.62276699@posting.google.com>...

>

> *Horseback feeling from experience with commercial nuclear fuel:*
> *A core such as this, in five seconds, would be fairly accurately*
> *treated as adiabatic.*

Certainly the models in the Los Alamos report assumed this.

> *I'm thinking, though, that a significant fraction of the energy*
> *would have gone away as neutrons that didn't interact with the*
> *core.*

With plutonium, you get 2 spare neutrons from each fission. A typical fission neutron has around 2 MeV. Fission releases around 180 MeV. So only around 2% of the fission energy could be carried away by neutrons.