How to store energy with light

How do you store light as energy?
Re your next question storing light as light seems a pointless exercise. We don't store electricity as charge,we store it as chemical energy in a batterybecause that's easier,cheaper and more useful. If you want to store light put the energy in a battery then use the energy to power an LED.

How do you store electricity as a charge?
We don't store electricity as charge,we store it as chemical energy in a batterybecause that's easier,cheaper and more useful. If you want to store light put the energy in a battery then use the energy to power an LED. @raptortech97: we can store charge temporarily in a capacitor and we can store a magnetic field temporarily in an inductor.

Why is it hard to store light as light?
It's hard to store light as light because the most common way light interacts with matter is through absorption and emission,which is how mirrors work. However light rays can be bent by gravity,so it would be possible to arrange several massive stars in a way such that a light ray would move in a loop around the stars without energy loss.

Why is energy storage important?
This makes energy storage increasingly important,as renewable energy cannot provide steady and interrupted flows of electricity- the sun does not always shine,and the wind does not always blow. As a result,we need to find ways of storing excess power when wind turbines are spinning fast,and solar panels are getting plenty of rays.

How do you store photons in a container?
For the photons that make up light to exist they have to be travelling at the speed of light. This means that to store them you have to put them in a container where they can move around at the speed of light until you want to let them out.

Can you store light from the Sun for later use?
If,however,you want to store light from the sun for later use,a very different limitation exists,which is that transmission and reflectivity are tradeoffs. By opening the "door" to let photons in,you lose an unacceptable number of the ones already in. Sorry Tobias,I'm missing something here (and it is for sure my fault).

The insights drawn from this research hold the potential to dramatically advance technologies whose performance hinges upon subtle light-matter interactions, encompassing fields ...

In the last three decades, light emitting diodes (LEDs) have represented a breakthrough innovation for

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