

the **big** problem

I'm working on making nuclear fuels safer. During the Fukushima nuclear accident, a chemical reaction with the fuel released hydrogen gas which collected in the buildings and exploded.

what can be done to solve the problem

Obviously not a good thing. One solution is to change the geometry and materials of the fuel to make sure hydrogen gas is not produced by fuel so it's safer during an accident! We need to make sure the new fuel has similar properties to the current fuel so I'm modeling it using computer simulations because, sadly, they don't just give everybody nuclear fuel to play around with.

specifics on the **big** problem

how **my** work helps solve the problem