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Research Profile

The subject of my research is the study of a photothermic hydrogen sensor.
Hydrogen is one of the most useful gases around. It finds many applications in industry and is a clean source of energy as well. Many car industries are in the process of making cars that run on hydrogen rather than petrol.
One drawback of hydrogen is that if its concentration in air exceeds a certain percentage, it explodes. In order to avoid the dangers of having hydrogen leaks, it is important to have hydrogen detectors.
Hydrogen detectors are made of a metal called palladium and its function is based on photothermic techniques.
The palladium is heated by a blue laser beam while the light reflected back off it comes from a red laser beam. The amount of light reflected back from the palladium can change either because it is heated up or because there is hydrogen around it. Hydrogen gas is adsorbed on the surface of palladium changing its reflection pattern.

Other Interests

In her spare time, she likes meeting friends and going for a coffee or to the cinema and having a nice time together.