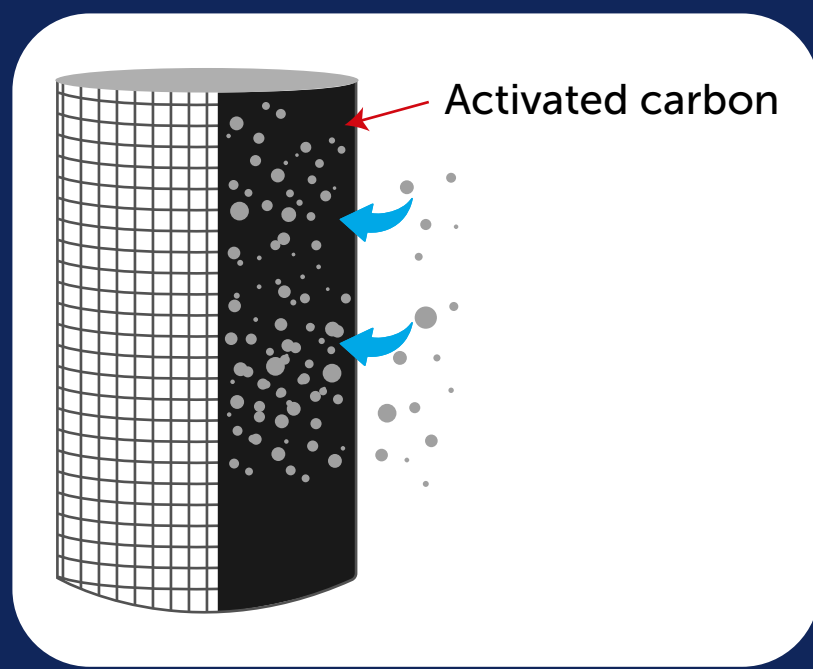


A New Affordable and Sustainable Hybrid Material to Reduce Air and Water Pollutants

Current gold standard adsorbent



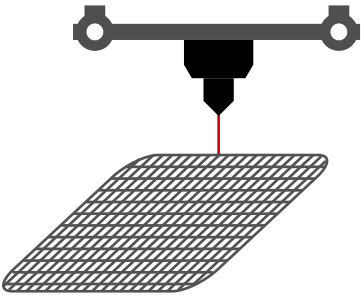
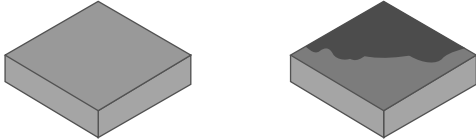

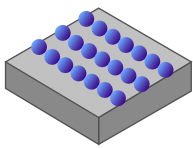
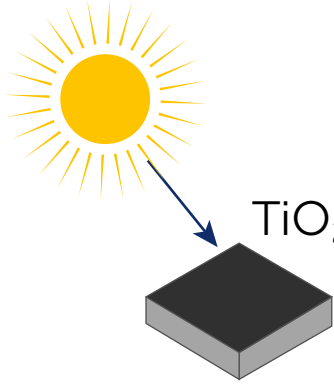
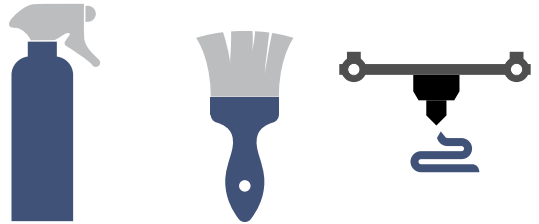
- ✓ High adsorption
- ✗ Expensive
- ✗ Disposal of end-of-life sorbent
- ✗ Poor regeneration

What is a suitable alternative?

Synthesis



Benefits of new hybrid material

 <p>3D printing Used for water filtration</p>	 <p>Particulate matter trapping Reduced air pollution</p>	 <p>Sustainable Lower carbon footprint</p>
 <p>Adsorption High organic dye adsorption efficiency</p>	 <p>Photodegradation Good photodegradation performance with titania coating</p>	 <p>Flexible application Brush, coat, spray or 3D-print</p>

A new class of sustainable hybrid materials made from solid wastes and naturally abundant polymers can reduce water and air pollution more efficiently than activated carbon