**INDUSTRIAL HEMP AS FILTER MEDIUM TO ACHIEVE**

**NET-ZERO CARBON EMISSION**

* Industrial hemp (Cannabis sativa L.) has emerged as a promising

sustainable material with potential applications in mitigating carbon

emissions.

* Hemp’s porous structure, high cellulose content, and natural adsorption

capabilities make it a viable alternative for capturing pollutants such as

carbon dioxide (CO₂), particulate matter, and volatile organic compounds

(VOCs).

* This idea explores its efficiency compared to conventional materials, and

its feasibility for large-scale industrial applications. Findings indicate that

hemp-based filtration systems can contribute to reducing industrial

carbon footprints while promoting eco-friendly waste management.

* The use of hemp with engineered chemicals like aqueous alkaline

solutions (like NaOH and KOH), aqueous amines, amino acids, and

peptides can absorb carbon and releases the carbon when heated.

* Integrating hemp with DAC (Direct Air Capture) method may result in

high amount of co2 capture due to the properties of hemp like high

porosity and carbon negative properties.

A diagram of a method

AI-generated content may be incorrect.