

## **Porous Possibilities: Materials that Heal, Store, and Sense**

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Porous materials such as metal–organic frameworks (MOFs) offer an extraordinary platform for innovation across chemistry, materials science, and biomedical applications. Their tunable cavities and high surface areas enable a wide range of functions – from controlled storage and delivery of molecules to selective sensing. In this talk, I will discuss designing porous materials with versatile functionalities, highlight examples of frameworks that capture and release gases or deliver drugs on demand, and act as responsive sensors in complex environments. By connecting molecular design principles with real-world applications, this talk will demonstrate how porous materials are not just static structures, but dynamic platforms that expand the possibilities for chemistry, medicine, and sustainable technologies.