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Type: **Poster Presentation**

Comparative Analysis of Porous Organic and Inorganic Materials for Drug Delivery

This review examines the properties and applications of porous organic and inorganic materials in drug delivery systems. Porous organic materials, such as Poly(D,L-lactide-co-glycolide), (PLGA) and chitosan, are valuable due to their biocompatibility and biodegradability, and they are suitable for integration with biological tissues. In contrast, porous minerals such as silica and alumina offer superior thermal and chemical stability, ideal for demanding medical environments such as cancer treatment. This comparative analysis addresses their synthesis, functionalization, and specific applications and highlights the necessity of selecting materials based on therapeutic needs and drug delivery requirements. This review emphasizes the ongoing developments that increase the effectiveness of these materials in medical applications focusing on the pore properties of the compounds.

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Track Classification: New Energies / Underground Gas Storage