

ZIF	Substrate	Method	Composite Characteristics	Pollutant Type	Efficiency (%)	Regeneration	References
ZIF-8	SiO ₂ nanofiber membrane	Electrospinning and Contra-diffusion	Diameter of ZIF-8 crystal: 120nm	PM (smoke), Formaldehyde	99.96%, 79.53%		Zhu et al., 2019
ZIF-8	PET/PE and upper layer of Keratin based nanofiber via electrospinning	Sonication	Dodecahedral morphology and diameter of 346.28nm	Formaldehyde and photocatalytic disinfection	99.09% for formaldehyde, 99.89% bactericidal efficiency		Ni et al., 2022
ZIF-8	Non-Woven Fabrics (NWFs)	Chemical method	Rhombic Dodecahedral Morphology with average diameter of 92nm	PM removal and photocatalytic disinfection	97% PM removal, 99.999% Bactericidal efficiency		Li et al., 2019
ZIF-8	Polyacrylic Acid (PAA)	Electrospinning	Pore size 0.5um, porosity 89.4%	PM 2.5	99.60%		Guo et al., 2021
ZIF-8	ZIF-8-T (Thermal modified form of ZIF-8)	Facile thermal treatment	-	Formaldehyde removal	72% for 20 ppm, 100% for 10 ppm in 1 hour		Wang et al., 2020
ZIF-8	Cellulose nanofibers air filter	Dip coating electrospinning	rhombic dodecahedron shape with the average size of 133 nm	PM 2.5	97.70%		Sukhchai et al., 2022
ZIF-94	No substrate	hod using methanol and tetrahy-drofuri	3-D structure, dodecahedron, particle size of 4 nm	CO ₂	CO ₂ uptake (53.30 cm3/g),		
ZIF-67	Cellulose nanofibers air filter	Dip coating electrospinning	rhombic dodecahedron shape with the average size of 510 nm	PM 2.5	95.90%		Sukhchai et al., 2022
ZnCo-ZIF	Cellulose nanofibers air filter	Dip coating electrospinning	rhombic dodecahedron shape with the average size of 100 nm	PM 2.5	96.50%		Sukhchai et al., 2022
ZIF-95	No substrate	Chemical method	Cavity size: 2.4nm, Thermal stability upto 500 degreeC	CO ₂			Wang et al., 2008
ZIF-100	No substrate	Chemical method	Cavity size: 3.56nm, Thermal stability upto 500 degreeC	CO ₂	to 28.2 l (55.4 g, or 1.7 mmol per g of ZIF-100) of CO ₂ at 273 K and 15.9 l (31.2		Wang et al., 2008
ZIF-8	1-n-butyl-3-methylimidazolium thiocyanate ([BMM][SCN])	Chemical Method	rhombic dodecahedron structure, thermal stability upto 200 degreeC	CO ₂ /CH ₄ , CO ₂ /N ₂	d CO ₂ /N ₂ were improved 2.6 and four-times as compared to its values in pristine		Wang et al., 2008
ZIF-95	polyacrylonitrile (PAN) polymer	Sol-gel/thermal method	Thermal stability upto 400 degreeC				
ZIF-8	TiO ₂	Self-assembly Method	high dispersion of TiO ₂ nanoparticles in ZIF-8, formation of a 2-type heterojunction and a high ζ potential. The thickness of one layer of ZIF-8/PAN MOF film	Toluene	91.17%		Li et al., 2021
ZIF-8	Ninofibrous Filters (MOFilter)	Electrospinning & Priming	high tensile strength, thermal stability (up to 300 °C),	PM 2.5, PM 10	PM _{2.5} (88.33±1.52%) and PM ₁₀ (89.67±1.33%)		Zhang et al., 2016
ZIF-8	polyimide (PI) nanofibrous membranes	Electrospinning	High zeta potential, high robustness	PM 2.5	Up to 96.6 ± 2.9%		Hao et al., 2019
ZIF-8	PAN	Electrospinning		PM 2.5, PM 10	Upto 90%		Ma et al., 2019