

Support information

Developed a Cube-like nanocomposite integrated into the polymer network as highly porous and effective electrospun nanofibers for extracting trace quantities of opioid and analgesic drugs in biological fluid

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Apparatus

To provide electrospun nanofibers, a high-pressure power supply model HV50P OV (Fanavaran Nano Meghias, Tehran, Iran) and a syringe pump model SP1000HPM (Fanavaran Nano Meghias, Tehran, Iran) were used. EBA 20 Hettich centrifuge (Oxford, England,) was applied for the centrifugation of real samples. The pH quantities of all sample solutions were adjusted by means of an 827 Metrohm digital pH meter with a glass calomel electrode (Herisau, Switzerland). The morphology of electrospun nanofibers was investigated by a field emission scanning electron microscopy (FE-SEM) equipped with a mapping detector (Oxford instrument, England). Attenuated total reflectance spectra (ATR) were accomplished by the ATR device (Thermo Nicolet Nexus 470, Walthman, Massachusetts, USA). FTIR spectroscopy was recorded with a Bruker IFS-66 FT-IR Spectrophotometer (Bruker Optics, Karlsruhe, Germany). The X-ray diffraction (XRD) patterns were achieved using the X'pert Pro apparatus (Panalytical Company) with a $\text{CuK}\alpha$ radiation source. X-ray photoelectron spectroscopy (XPS) was utilized to characterize the elemental composition information (Thermo Scientific: ESCALAB250Xi Mg X-ray source).

Reusability of the sorbent

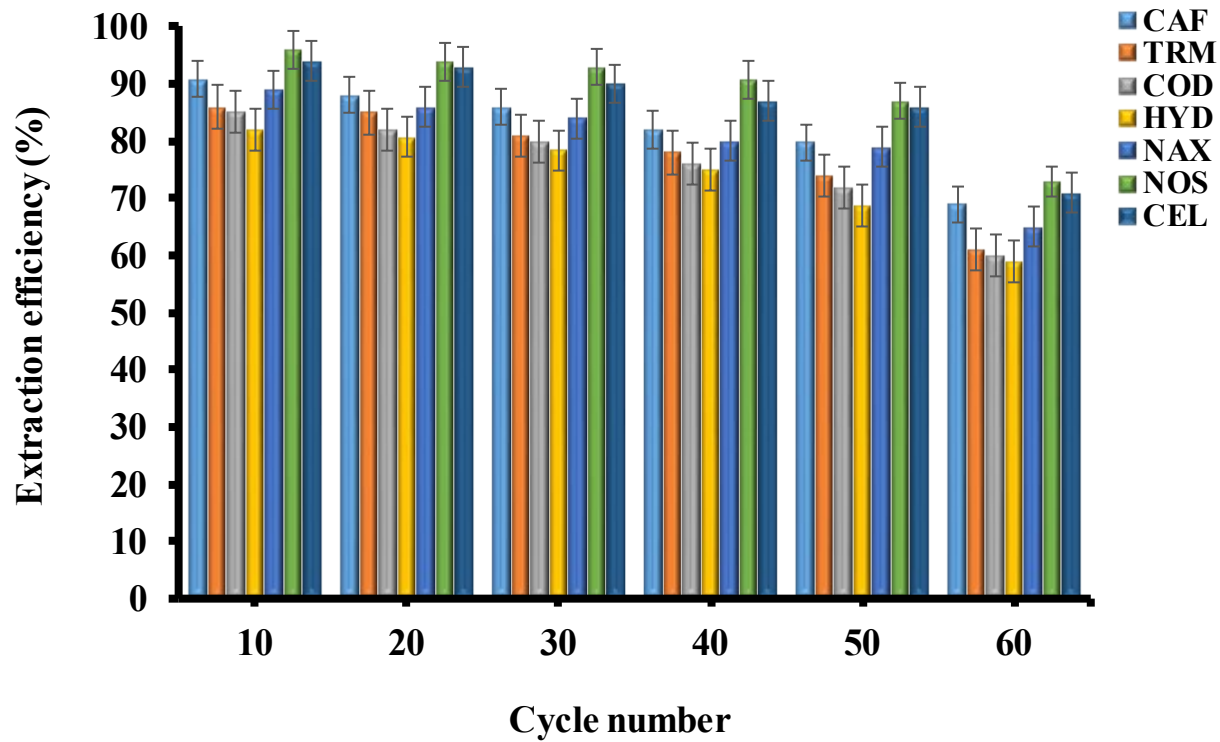


Fig. S1 The reusability of PAN/MOF Zn-Ni-Co OH/MWCNT nanofiber.