

Supporting Information: Roskov *et al.*

Samples for examination by field-emission scanning electron microscopy (SEM) were prepared by electrospinning fiber mats directly onto silicon wafers that could be inserted into the specimen chamber of a JEOL 6400F field-emission microscope, which was operated at an accelerating voltage of 5 kV. To reduce charging effects, the fibers were sputter-coated with a thin conductive layer (~6 nm) of Au/Pd at ambient temperature. Energy-dispersive spectroscopy (EDS) was performed with an Oxford Isis x-ray detector mounted in a Hitachi S3200 variable-pressure electron microscope and equipped with an ultrathin window for light element analysis.

An example of a PCL fiber mat containing SPIONs is presented in **Figure S1**. While the fibers vary considerably in size, the average diameter of fibers acquired under different experimental conditions is about 300 nm. Some of the fibers appear to possess a dimpled surface, which is evident in the inset (a large fiber is selected for display to facilitate scrutinization of the fiber surface). A representative EDS spectrum, as well as an enlargement of a portion thereof, of a PCL fiber (with 2.5 wt% SPIONs measuring 17.6 nm in diameter) subjected to a magnetic field during electrospinning is provided in **Figure S2**. Elements detected in this and related spectra include C from the fibers, Si and O from the silicon wafer, and Au and Pd from the conductive coating. Peaks corresponding to the K α and L lines of Fe (in the vicinities of 6.4 and 0.7 keV, respectively) are absent, indicating that the SPIONs are, for the most part, embedded within the fibers and do not reside, to an appreciable extent, on the fiber surface.

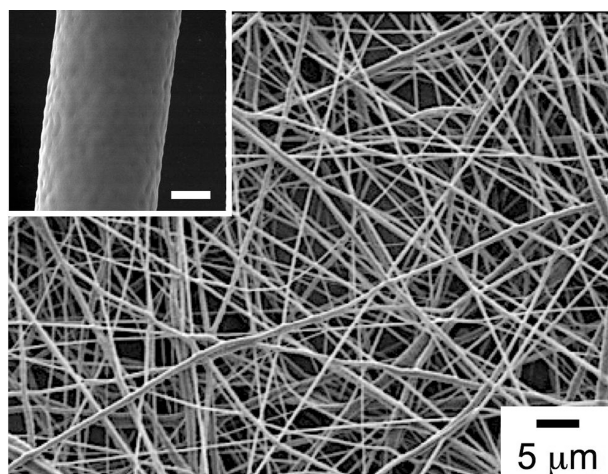


Figure S1.

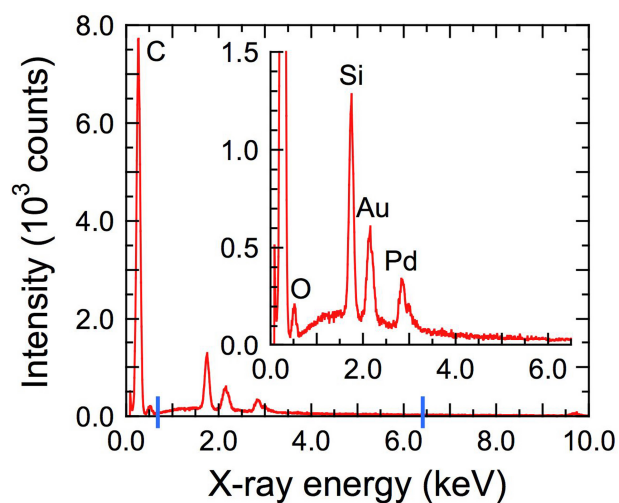


Figure S2.

Figure S1. SEM image of SPION-containing PCL fibers electrospun in the presence of an external magnetic field. The inset shows evidence of surface dimpling on a large fiber. The scalemarker in the inset corresponds to 2 μm.

Figure S2. EDS spectrum of a SPION-containing PCL fiber electrospun in the presence of an external magnetic field. The elements responsible for the observed peaks are labeled, and the x-ray energies associated with the Kα and L lines of Fe are identified by the blue lines.