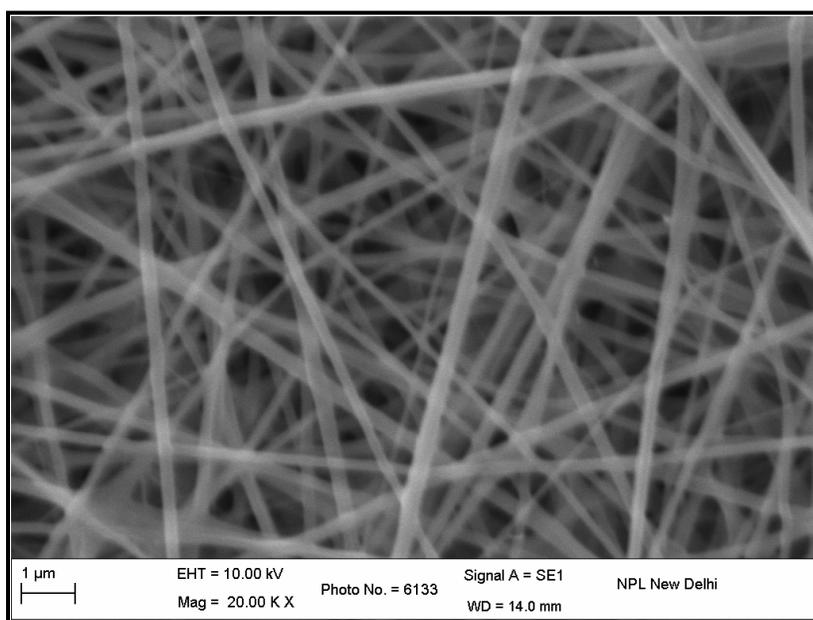


## Supplementary Information

### Data accuracy

To ensure quality of the data in Hg (II) adsorption, the experiments were carried out at optimized conditions in triplicate to ensure the reproducible results. The apparatus like pipette, volumetric flasks etc. were calibrated prior to its use. The calibration of AAS-Hg was carried out using certified reference material of SCP Science (UK) after appropriate dilutions. Utmost care was taken while preparing stock solutions to minimize the losses in dilutions. The reduction of Hg salt into zero-valent Hg for detection was carried out at optimized concentrations of Sodium borohydride (3%), sodium hydroxide (1%) and hydrochloric acid (5%). Care was also taken during adsorption studies of Hg (II) including factors such as determination of initial and final concentration, time, pH, precision and quantity of adsorbent etc, error in which would have affected the final results. In the proposed manuscript we have taken proper care to get reproducible results.<sup>1-2</sup> The data reported in the manuscript are with 95% confidence level ( $k=2$ ).

SEM image of regenerated adsorbent (Ce-PVA-CHT):



1. N. Singh and A. Sarkar, *ASIAN JOURNAL OF CHEMISTRY*, 2003, 15, 1593-1597.
2. N. Singh, T. Ahuja, V. N. Ojha, D. Soni, S. S. Tripathy and I. Leito, *SpringerPlus*, 2013, 2, 453.