

**Supplementary Material:** Preparation of electrospun PAN+CALF-20 fibers: characterization and adsorption study of Pb(II) and Cu(II) ions from aqueous solution

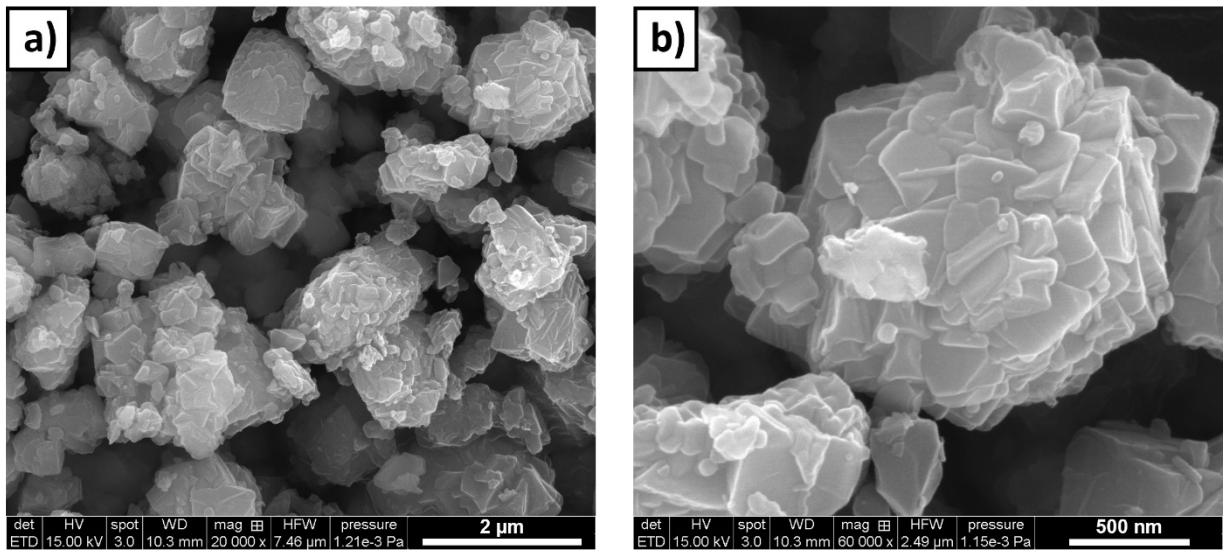
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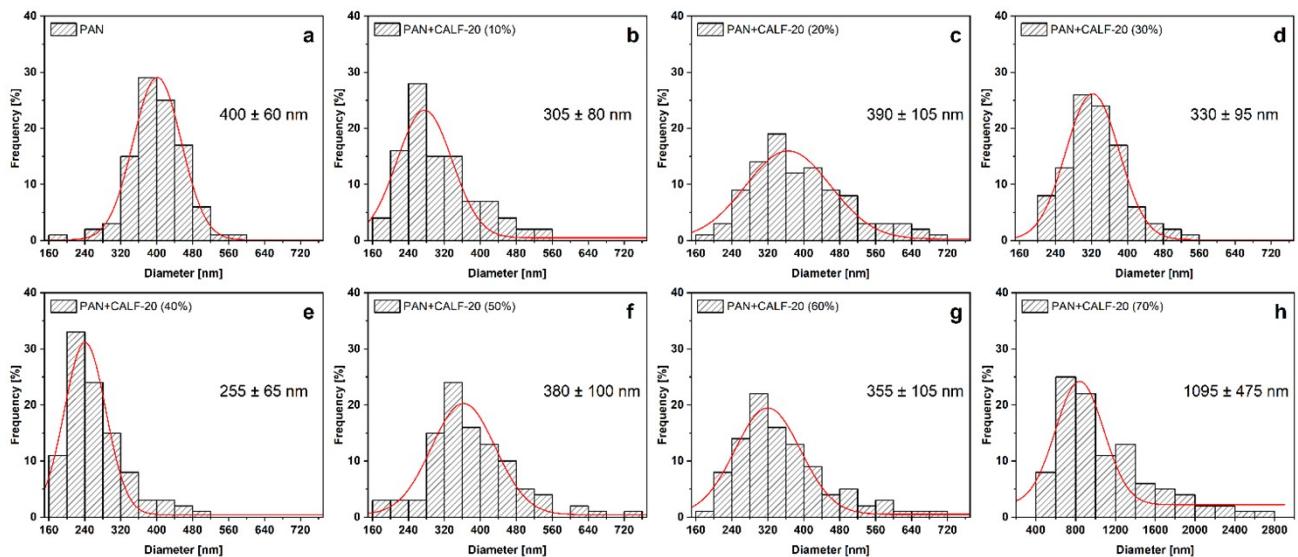
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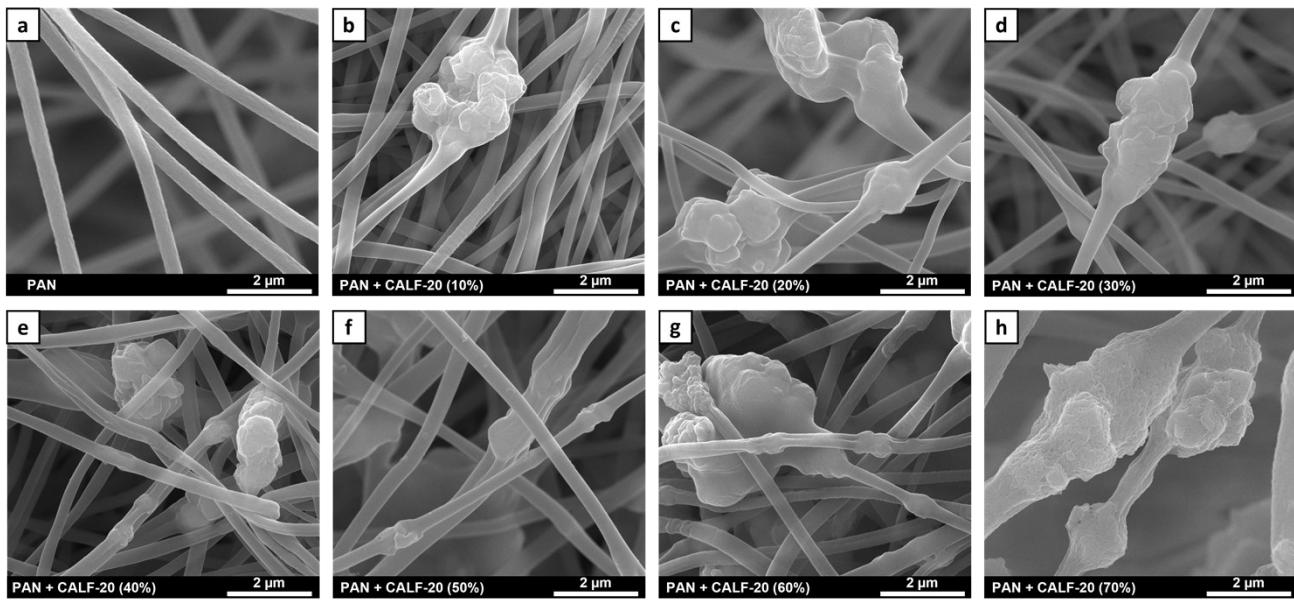
**Fig. S1** Digital image of as-spun PAN membrane containing 60 wt.% CALF-20.



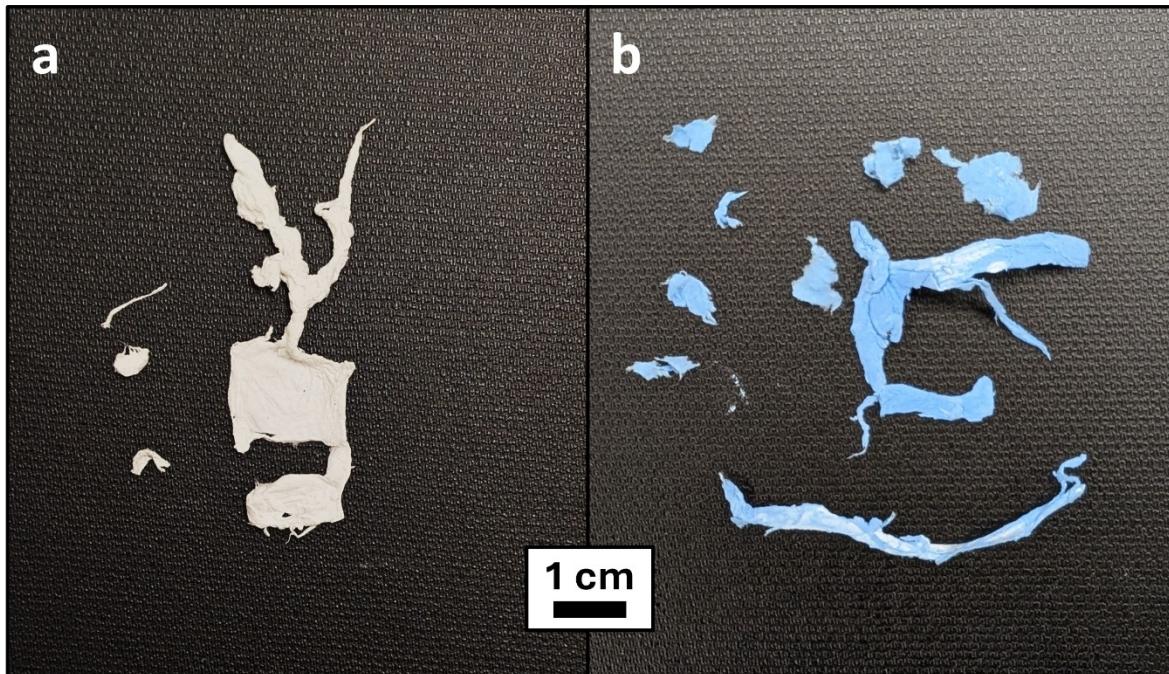
**Fig. S2** SEM images of CALF-20 particles.



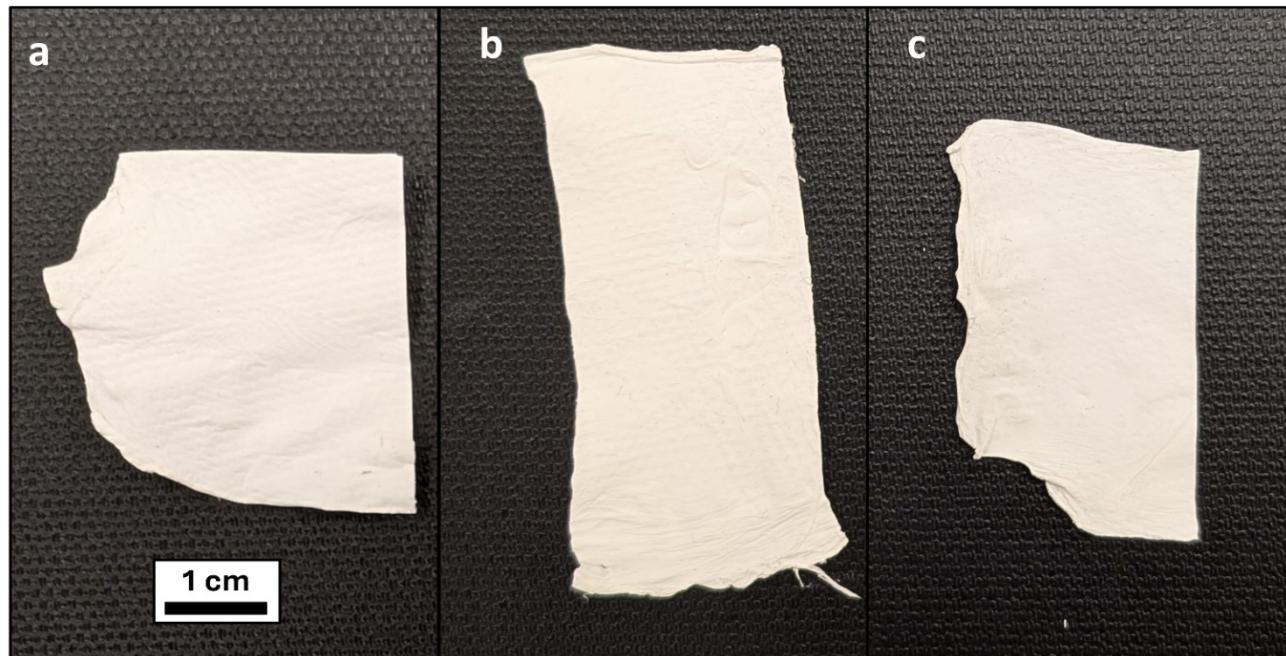
**Fig. S3** Diameter distribution of the as-spun fibers containing different loads of CALF-20.



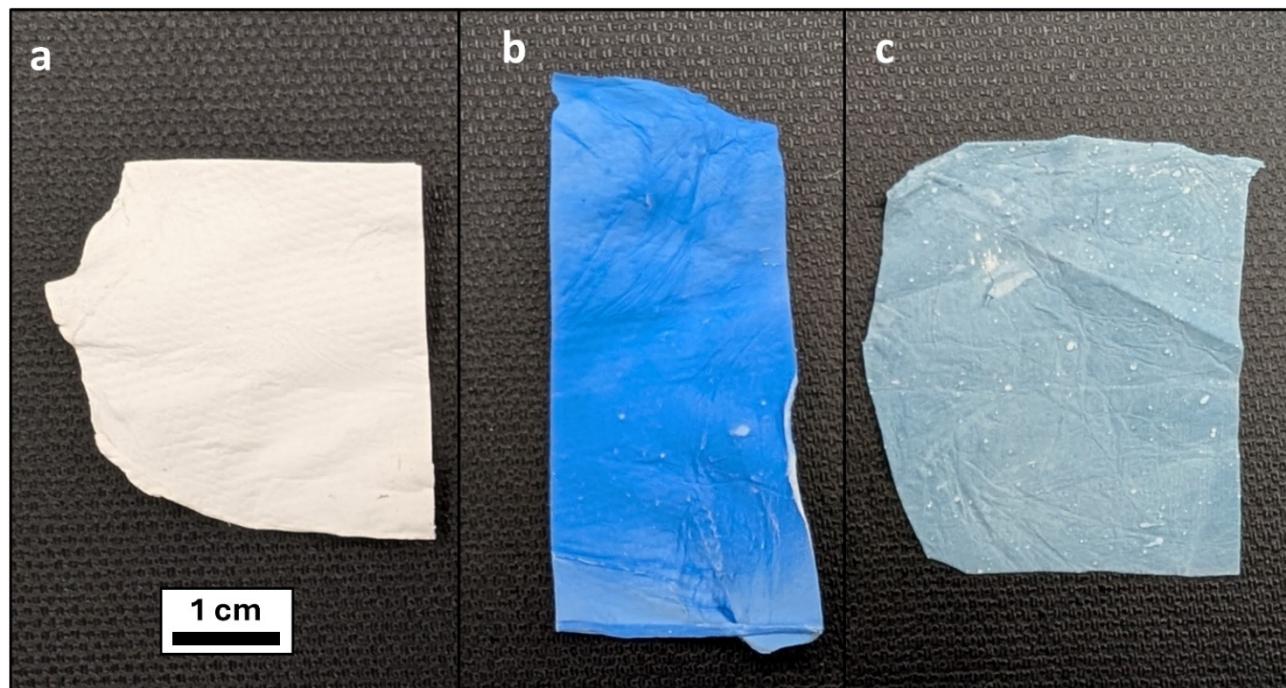
**Fig. S4** – SEM images of the electrospun mats with different CALF-20 content: (a) pure PAN, (b) 10 wt.%, (c) 20 wt.%, (d) 30 wt.%, (e) 40 wt.%, (f) 50 wt.%, (g) 60 wt.%, and (h) 70 wt.%



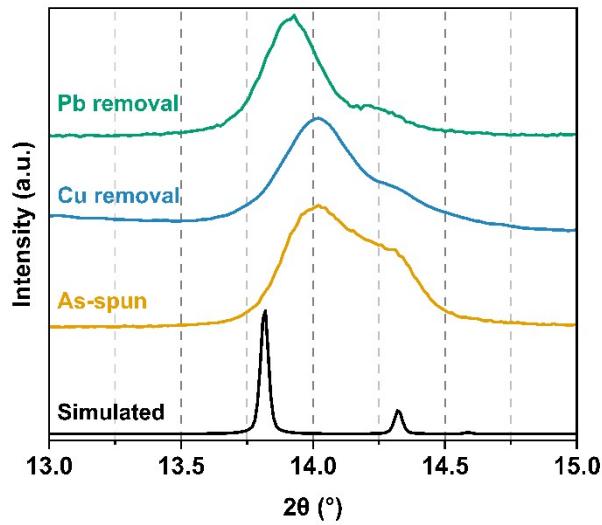
**Fig. S5** – Digital image of the PAN membrane containing 70 wt% of CALF-20 after (a) Pb and (b) Cu removal.



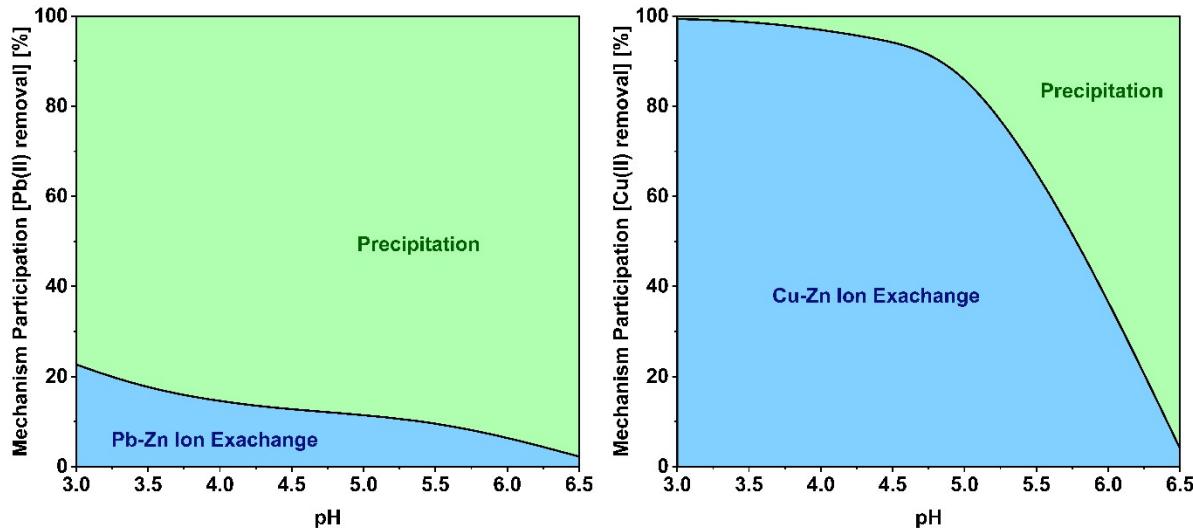
**Fig. S6** Digital image of the PAN membrane containing 60 wt% of CALF-20 (a) as-spun and after Pb removal: (b) air dried, and (c) dried at 100 °C, under vacuum.



**Fig. S7** Digital image of the PAN membrane containing 60 wt% of CALF-20 (a) as-spun and after Cu removal: (b) air dried, and (c) dried at 100 °C, under vacuum.



**Fig. S8** XRD pattern with  $2\theta$  from 13.0 to 15.0 of the simulated CALF-20, as-spun PAN+CALF-20 (60 wt.%) mat, and after metal removal



**Fig. S9** Contribution of ion exchange and precipitation mechanisms in Pb(II) and Cu(II) removal.