

Supporting information

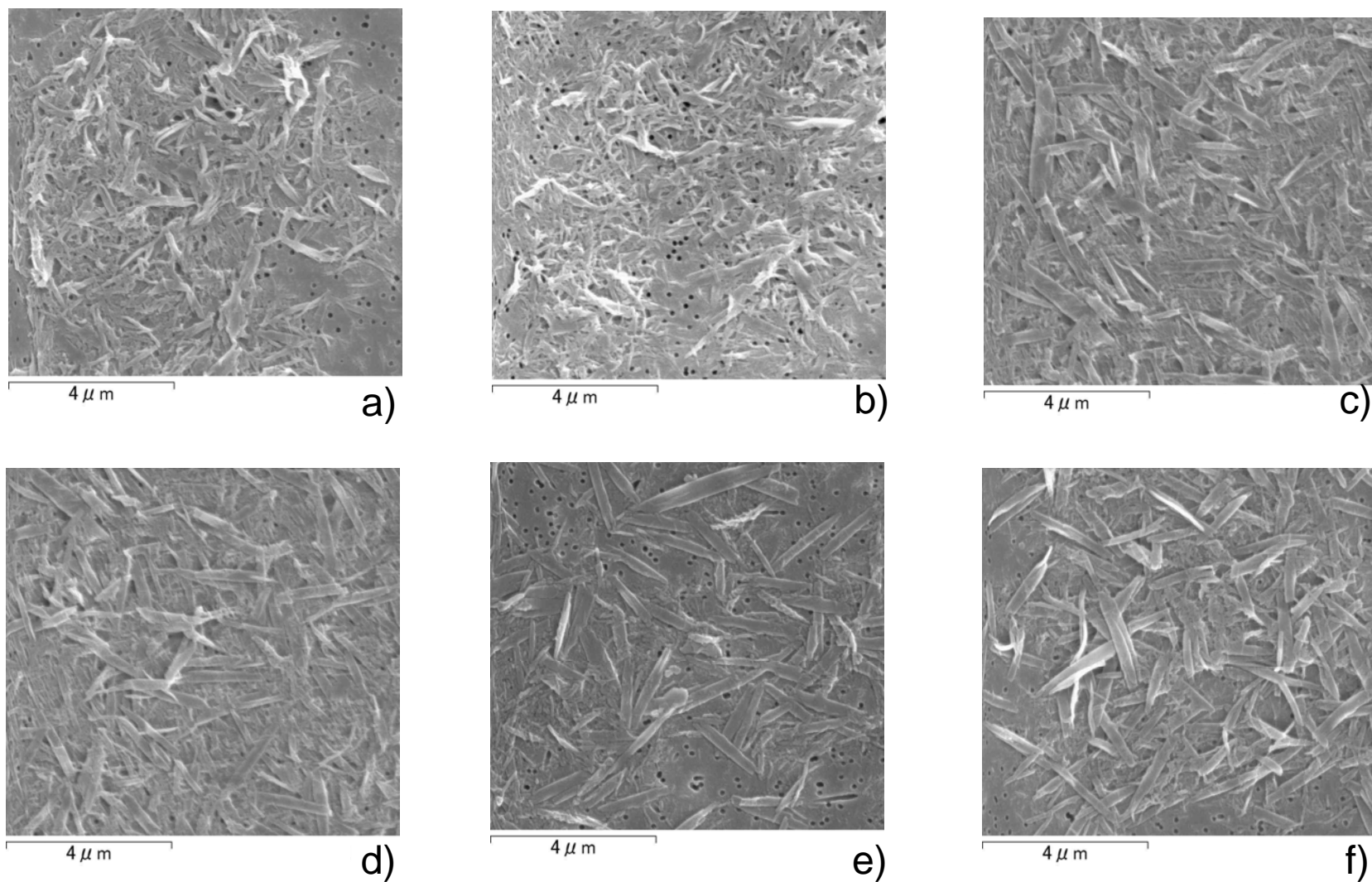


Figure S1 SEM images of dithizone nanofibers on a polycarbonate membrane filter as a function of growth time. a) 0.5 min, b) 1.0 min, c) 1.5 min, d) 2.0 min, e) 2.5 min, and f) 3.0 min.

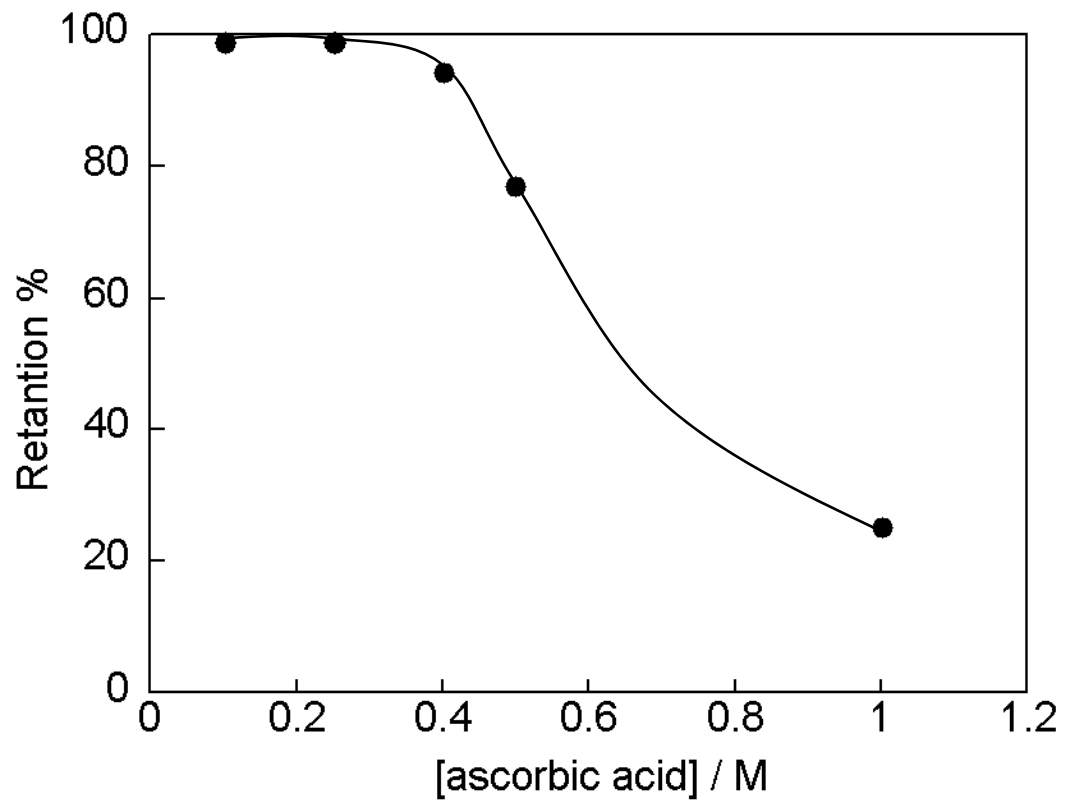


Figure S2 Influence of the concentration of ascorbic acid on the recovery percentage of dithizone nanofiber on a mixed cellulose membrane filter.

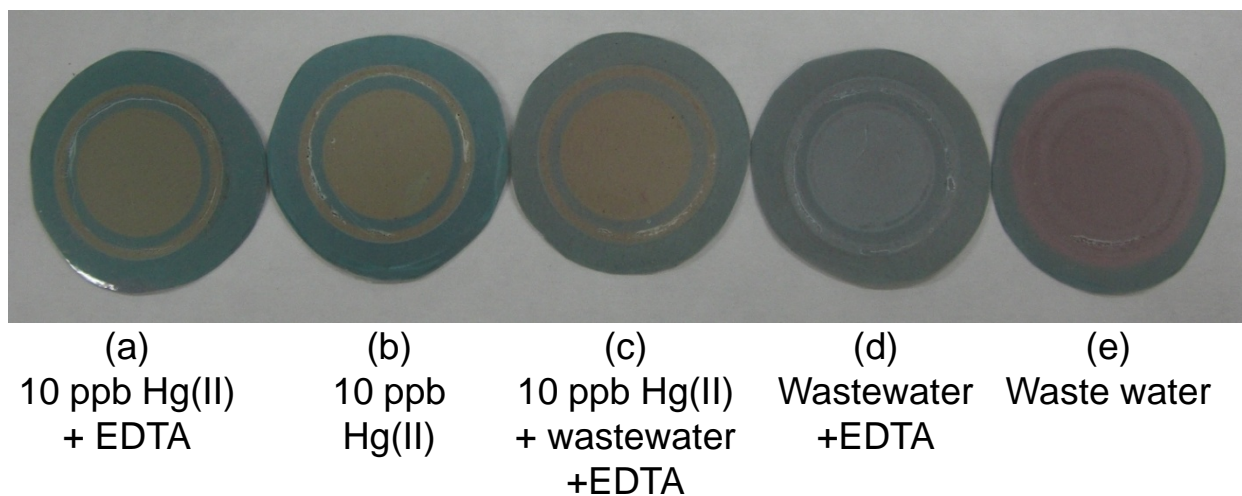


Figure S3 A photograph of dithizone membranes after passing the solution containing 10 ppb of Hg(II) with/without artificial wastewater in the presence/absence of EDTA .
Sample volume: 100 ml, flow rate: 5-6 ml min⁻¹. Components of wastewater are listed in experimental section.

Table S1 The tolerance limits of anions on the determination of Hg(II) at 10 ppb.^a

Anions	Concentration (M)	Concentration Ratio to Hg(II) ion (M/M)	Hg(II) found (ppb)	Recovery (%)
Cl ⁻	0.6	12,120,000	11.62	116
Br ⁻	10 ⁻²	202,000	9.95	100
SO ₄ ²⁻	10 ⁻¹	2,020,000	10.23	102
PO ₄ ³⁻	10 ⁻²	202,000	10.16	102
CO ₃ ²⁻	10 ⁻³	20,200	10.35	104
NO ₃ ⁻	10 ⁻²	202,000	10.00	100

a) 2×10^{-4} M EDTA and 0.01 M glycine buffer (pH 2.95) were added. The filtration rate was kept at 5-6 ml min⁻¹.