

## ORIGINAL RESEARCH ARTICLE

# Adsorption of Cu (II) ions from aquatic environment using pre-irradiated Ethylene Tetrafluoroethylene Film

## Supplementary materials

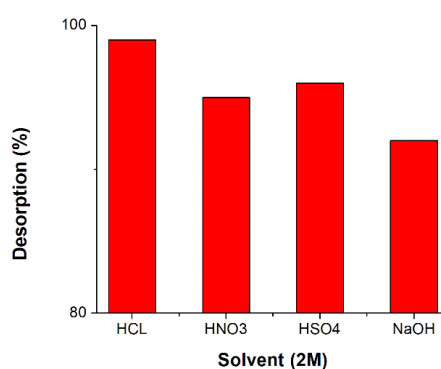
**Table S1:** Properties of backbone polymer; **Table S2:** Functionalization degree of PET nanofibers at room temperature; **Figure S1:** Effect of solvents on desorption.

**Table S1.** Properties of backbone polymer.

Backbone polymer	ETFE (film)
Color	Transparent
Thickness	0.025 mm
Size	300 × 300 mm
Water Uptake	00 (%)
Tensile strength	65MPa

**Table S2.** Physico-chemical properties of grafted ETFE films.

No.	Monomer conc. (% in H <sub>2</sub> O)	Monomer ratio (SSS%: AA%) in H <sub>2</sub> O	Dose rate (kGy)	GY (%)	Thickness (mm)	Surface area ext. (%)	Water uptake (%)	Tensile strength (MPa)
1	9	1:2 (3:6)	50	4.5	0.025	0.15	0.44	65
2	12	1:2 (4:8)	50	12.5	0.025	5	4.13	65
3	13.5	1:2 (4.5:9)	50	60	0.026	10	17.99	60
4	15	1:2 (5:10)	50	190	0.027	20	86.61	60
5	18	1:2 (6:12)	50	265	0.027	30	72.36	-
6	24	1:2 (8:16)	50	387	0.028	50	80.22	-
7	30	1:2 (10:20)	50	470	0.028	60	210.62	-



**Figure S1.** Effect of solvents on desorption.