

## Supplementary material

**Table S1.** Detailed list of different biomasses used in the biosorption of copper. Parenthesis of algae denote the subclassification: R (red), B (Brown) and G (green).

Biomass	Name	Cu Concentration, mg/L	q <sub>max</sub> , mmol/g	Reference
Alga	<i>Gracilaria chilensis</i> (R)	200	0.311	This study
	<i>Gracilaria changii</i> (R)	20	0.094	[1]
	<i>Asparagopsis armata</i> (R)	50	0.335	[2]
	<i>Chondrus crispus</i> (R)	50	0.637	[2]
	<i>Sargassum wightii</i> (B)	1000	1.810	[3]
	<i>Sargassum filipendula</i> (B)	35	0.601	[4]
	<i>Ascophyllum nodosum</i> (B)	50	0.925	[2]
	<i>Turbinaria oranta</i> (B)	100	1.082	[4]
	<i>Fucus spiralis</i> (B)	50	1.116	[2]
	<i>Cladophora crispate</i> (G)	200	0.905	[4]
	<i>Cladophora sp.</i> (G)	100	0.216	[4]
	<i>Codium vermilara</i> (G)	50	0.266	[2]
	<i>Spirogyra insignis</i> (G)	50	0.304	[2]
	<i>Ulva reticulata</i> (G)	100	0.886	[5]
Bacteria	<i>Bacillus thioparans strain U3</i>	40	0.666	[6]
	<i>Bacillus sp.</i>	200	0.256	[7]
	<i>Pseudomonas putida</i>	11	0.104	[8]
	<i>Pseudomonas putida</i>	250	0.249	[9]
	<i>Geobacillus toebii</i>	50	0.247	[10]
	<i>Streptomyces rimosus</i>	9.21	0.143	[11]
	<i>Streptomyces coelicolor A3</i>	250	0.762	[12]
	<i>Bacillus cereus</i>	50	0.792	[13]
Fungi	<i>Rhizopus arrhizus</i>	75	0.169	[14]
	<i>Saccharomyces cerevisiae</i>	25	0.074	[15]
	<i>Saccharomyces cerevisiae</i>	6.06	0.078	[11]
	<i>Penicillium chrysogenum</i>	9.65	0.136	[11]
	<i>Neurospora crassa</i>	200	0.194	[16]
	<i>Penicillium chrysogenum</i>	100	1.448	[17]
	<i>Kluyveromyces marxianus</i>	95.8	0.101	[18]
	<i>Candida sp.</i>	94	0.076	[18]
	<i>Aspergillus niger</i>	10	0.206	[19]
	<i>Aspergillus niger</i>	75	0.150	[14]
	<i>Aspergillus niger</i>	100	0.372	[19]
<i>Aspergillus niger</i>	25	0.150	[14]	
<i>Aspergillus niger</i>	50	0.245	[20]	

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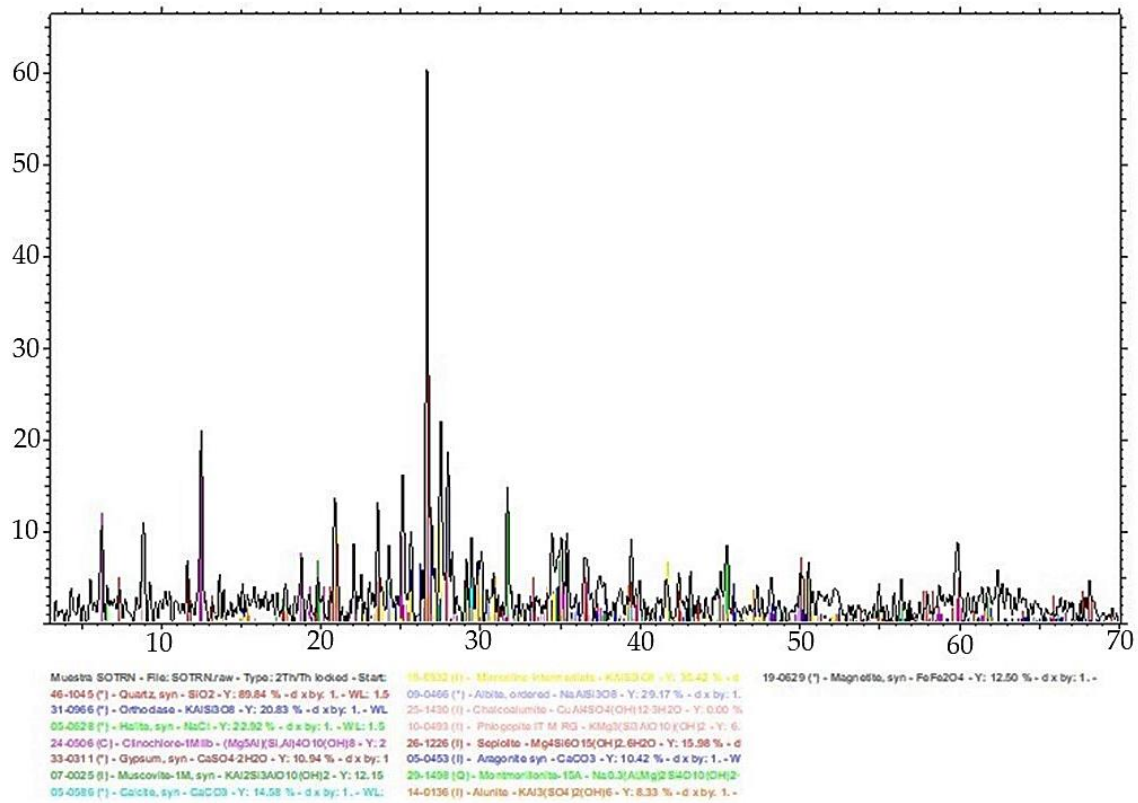


Figure S1. XRD spectra of SOTRN tailing.