Starbon® Case Study - *Water purification*

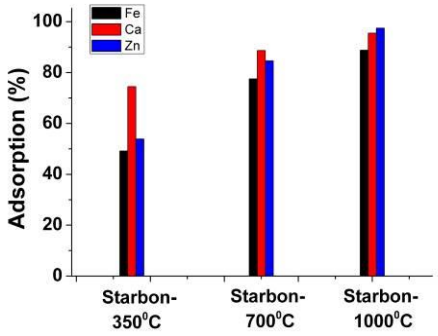
Naturally-derived adsorbents have great potential for use in applications such as water purification and pollution control. Starbon® technology allows for the design of ideal candidates for such applications due to superior control over the surface chemistry and the distribution of pore sizes.

- Starbon® materials are efficient adsorbents, outperforming other carbons and silicas in the adsorption of metals and organic molecules from contaminated water and aqueous waste streams.

- Starbon® materials also have proven efficacy in gas trapping (including CO_2 and H_2) and purification.

Metals adsorption

Metal	Concentration solution (g/L)	Adsorption (%)		
		Starbon-350	Starbon-700	Starbon-1000
Mg	4.67	50.8	81.6	83.2
Ca	14.9	74.4	88.7	95.5
Ba	0.14	99.0	99.1	99.4
Fe	0.12	77.5	88.8	90.0
Ag	0.11	99.1	99.1	99.1
Zn	0.039	53.8	84.6	97.4
La	0.024	66.7	83.3	91.7
Cu	0.008	75.0	87.5	75.0
Average:		74.5	89.1	91.4



Adsorption of organic molecules from water