

The interactions of organic species with humic acids studied by dialysis techniques. Comparison of selectively methylated with “natural” humic acids

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The interactions of standard humic acids provided from International Humic Substances Society (IHSS) specifically Leonardite Humic Acid Standard 1S0104H have been deeply studied with organic ionic compounds (such as surface active agents and organic dyes). The unconventional diffusion and dialysis techniques (originally developed on our institution) have been used for the study on binding of organic species to humic acids. Two types of humic acids have been compared – humic acids with selectively blocking carboxylic functional groups (-COOH) in comparison with humic acids in their native form.

The results of dialysis experiments confirm the strong affinity of both types of humic acids towards to ionic species. Surprisingly, the effect humic acids modification (blocking of carboxyls) is minor than it could be expected. The modified equivalents of standard humic acids had almost the similar affinity towards to ionic compounds with non-modified (native) humic acids.

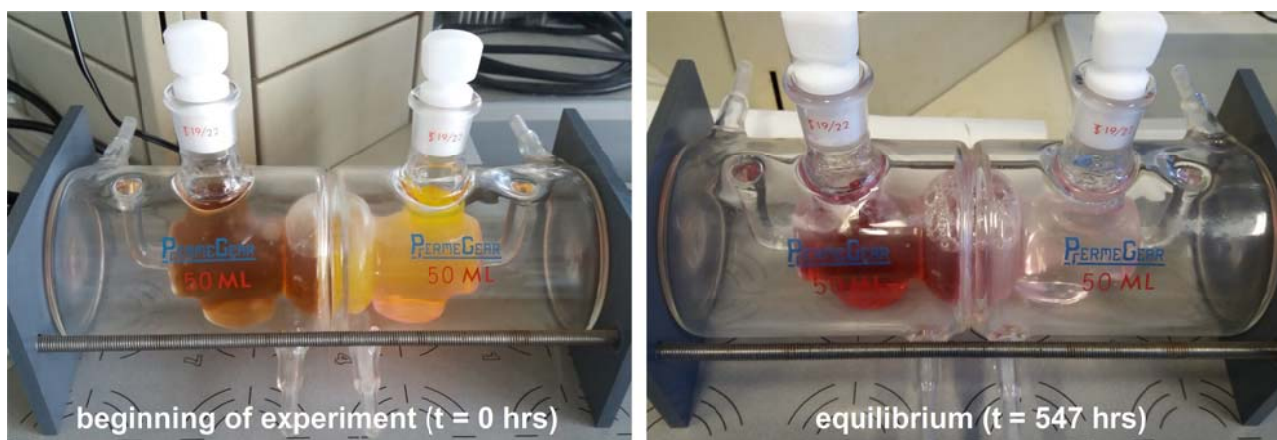


Figure 1. Schematic diagram of the equilibrium dialysis experiment

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