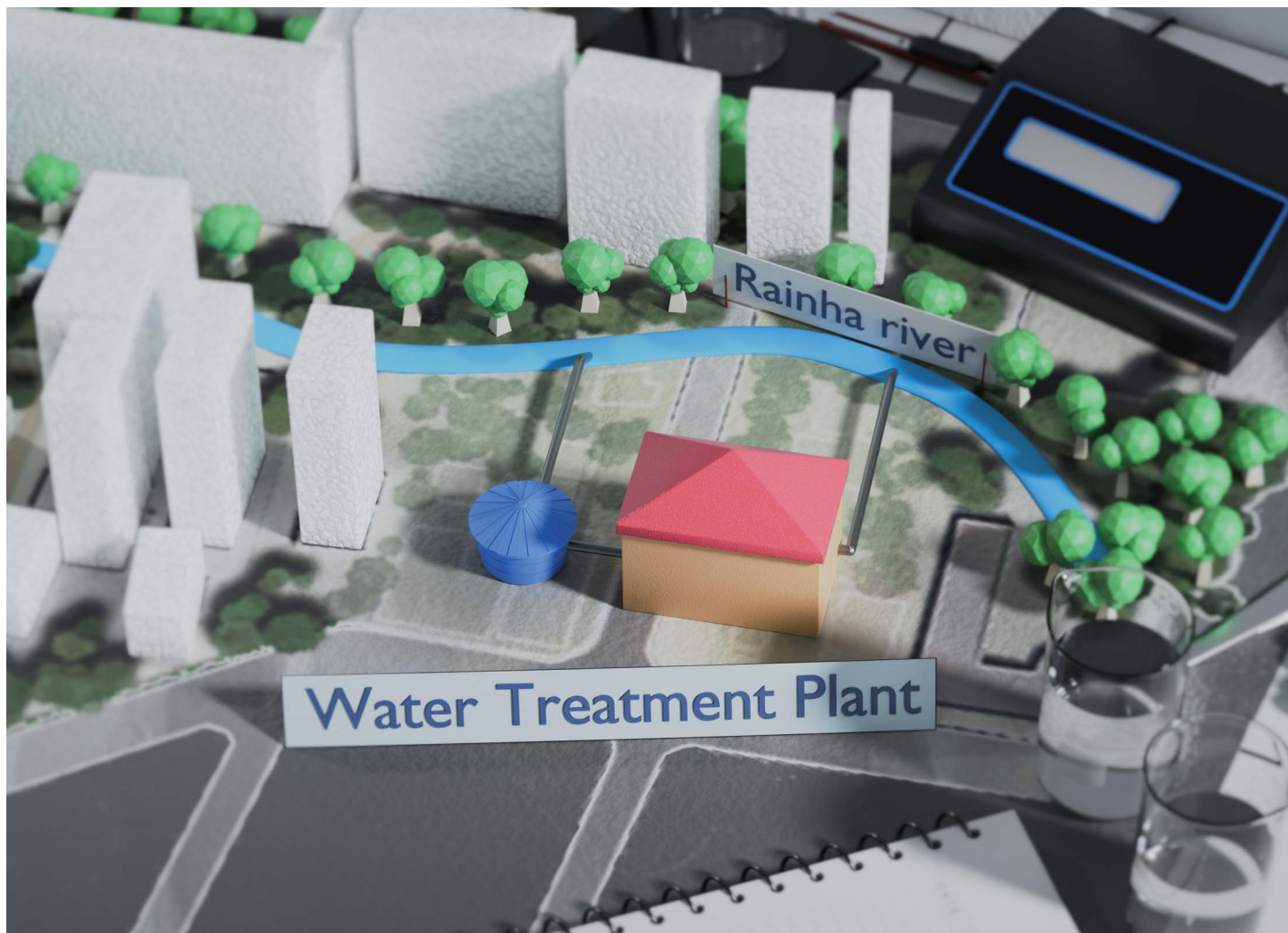


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**Showcasing research from Professor Adriana Gioda  
Atmospheric Chemistry Laboratory, Department of Chemistry,  
Pontifical Catholic University of Rio de Janeiro (PUC-Rio), Rio  
de Janeiro, RJ, Brazil.**

Physicochemical analysis and toxicity of the Rainha River  
waters: conceptual design of a treatment plant

A study analyzed water quality from the Rainha River, crossing PUC-Rio, over a year. Samples underwent physical-chemical and toxicity tests per CONAMA standards. Results showed class 1 water, requiring minimal treatment for potability. Toxicity tests with *Saccharomyces cerevisiae* revealed no significant toxicity. A water treatment plant was designed, involving microfiltration, hypochlorite decontamination, and adsorption. The process ensures potable water for campus use, supporting sustainability and safety for the university community. Copyright holders: Gabriel G. de Barros, Anna De Falco, Lius Fhernando Mendonça da Silva, Carlos Leonny R. Fragoso, Adriana Gioda and Roberto Bentes de Carvalho.

**As featured in:**



See Adriana Gioda *et al.*,  
*Environ. Sci.: Adv.*, 2025, **4**, 245.