

# RECOVERY OF NUTRIENTS FROM WASTEWATER

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The invention relates to a material, obtained by heat treatment, which has the property of binding and retaining substances dissolved in wastewater.

**Protection:** Italy, with possibility to extend internationally

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## INVENTION

The invention is referred to the process for obtaining a composite that has the property of binding and retaining substances dissolved in wastewater, such as phosphorus, thus allowing **the recovery of nutrients useful to generate organo-mineral fertilizers**.

The composite is made by mixing, in appropriate proportions, char obtained from biomass or sewage sludge and carbonate materials from quarries or biogenic and subjecting the mixture to pyrolysis.

During the fabrication of the composite, CO<sub>2</sub> is also produced: after the removal of phosphorus by precipitation, CO<sub>2</sub> can be used to **lower the pH of the water** treated with the composite.

## ADVANTAGES

- Nutrient recovery from liquid fraction sludge dewatering
- Valorization of the sewage sludge
- Production of nutrient-rich material
- Greater effectiveness in removing phosphorus.
- Quick and effective removal of pollutants.

## APPLICATIONS

The main application is in the wastewater purification sector.

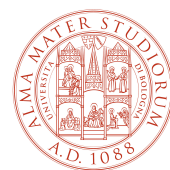
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