

REMOVAL OF ZINC FROM RAINWATER USING A BIOMATERIAL



TECHNOLOGY SUMMARY

This invention develops a process for the removal of zinc from waters, namely, rainwater, resorting to a low-cost biomaterial, resulting in water suitable for use in buildings. The process comprises three steps: (a) preparation of the adsorbent material; (b) removal of zinc from referred water; (c) removal of adsorbent material from the water, which is ready to use. The technology is simple, convenient, cheap and of easy application.

BENEFITS

LOW-COST

EASY IMPLEMENTATION

DOES NOT REQUIRE SAMPLE PREPARATION

ENVIRONMENTALLY FRIENDLY: uses a common biomaterial, which can be reused in other applications.

CONTEXT

Many of the techniques currently applied for the removal of heavy metals from water, such as zinc, are based on methods that require sample preparation and require potentially hazardous materials. Such methodologies are costly and require the application of specific equipment.

The present invention provides a method for the removal of zinc from rainwater based on the use of a biomaterial as adsorbent. The proposed methodology does not require preparation of the water, is cheap, and is suitable for use in buildings, either in residences or in industries. The used biomaterial may be reused either for agricultural and industrial purposes.

APPLICATIONS

This method can be used for rainwater treatment to be used in buildings:

RESIDENCES

INDUSTRIES

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IP RIGHTS

Trade secret.

DEVELOPMENT STAGE

TRL 4: tested in laboratory.

Available for presentation.

KEYWORDS

ADSORBENT

BIOMATERIAL

ZINC

WATER

RAINWATER



DEVELOPED BY

Researchers of Centre for Environmental and Marine Studies (CESAM) of the University of Aveiro.

BUSINESS OPPORTUNITY

Licensing agreement.

Joint development.

Testing of new applications.

Services.

PARTNERSHIP

The University of Aveiro seeks partners like companies or institutions that work in the environmental area.

CONTACT

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