



#FACT2




ULTRA RAPID BIOMASS ANALYSIS

BIOrescue partner Celignis Analytical created a novel methodology to analyse biomass composition in only one day, using **Near Infrared Spectroscopy analysis**.

Normal method

-  Two weeks
-  Several hundred €'s

BIOrescue method

-   One day
-  Less than €100

Predict biomass composition with high accuracy

Following the analysis of thousands of samples of different feedstocks across the world, Celignis developed unique algorithms to predict with **high accuracy and precision the composition of any biomass samples**.



13 different parameters, including type and amount of sugars, lignin and ash, can be analysed for **ANY kind of biomass**

How did the process work?

This novel methodology has been instrumental in the successful implementation of the BIOrescue biorefinery process to **convert used mushroom compost**.



First of all, it analysed and **predicted the composition of used mushroom compost** samples. Celignis could determine the type and amounts of sugar, lignin and ash present in the compost.



Secondly, the models were also used to determine the **efficiency of the extraction, pre-treatment and hydrolysis** technologies in the BIOrescue process for multiple combinations of feedstocks and conditions



What's Near Infrared Spectroscopy?

When light is sent to a sample certain portions (wavelengths) of the light can interact with it. In the case of the infrared portion of light, different wavelengths are absorbed by certain chemical bonds in the sample. The light that is

not absorbed is reflected back to the sensor of the equipment. We can then quantify the amount of this light, over different wavelengths, and use it to predict the chemical composition of the sample.



Read more here

<http://bit.do/biomass-analysis>



www.biorescue.eu



[@BIOrescue_BBI](https://twitter.com/BIOrescue_BBI)



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