

## Adsorption/Desorption Studies of Peanut Husks Using Salicylic Acid Model

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### Extended Abstract

Peanut husks have been investigated during the last few years in the struggle to improve the options in the department of environmental pollution by using natural materials which have the main advantages of being highly biodegradable [1] and coming from a renewable source. Environmental pollution can follow two main strategies, one being organic compounds depollution [2] and the other coming from inorganic mixtures, mainly heavy metal ions [3][4][5][6]. The aim of the present study is to test the sorption properties of unmodified peanut husks, the only operation made on the peanut husks being the milling in a laboratory mill. The effect of the temperature treatment on the sorption behaviour of the resulting peanut husks powder was tested. We chose to test the peanut husks powder due to the ease of filling, in some applications where a filled column is required the whole peanut husks being much more difficult to manage. For the characterisation of the powder SEM (Scanning electron microscopy), HPLC (high pressure liquid chromatography), FT\_IR (Fourier transformed infrared spectroscopy) and CNSH elemental analysis (carbon-nitrogen-sulphur-hydrogen) were used. The results are promising and the desorption properties could indicate a possible delivery vessel for controlled drug delivery, although more tests are required to entertain this theory.

### References

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