

An innovative methodology to carry out product quality control of homeopathic medicines

Through a process of sample preparation based on:

- aging of the homeopathic medicine (for a period of time in the order of months), in small volumes and at room temperature, by simply using small closed Pyrex vials
- subsequent freeze-drying of the obtained preparation (i.e. the same initial homeopathic medicine) to reach the solid phase

and through the use of IR spectroscopy, a widely consolidated technique, on the solid phase sample, we achieved a very remarkable outcome: the spectrum of the solid is very similar to the spectrum of liquid water with some peculiarities relating to the appearance of a peak around ca. 3000cm⁻¹ in the area of the stretching of the OH, and a considerable variety of peaks in the area of the bending of the OH.

Moreover, **it has been highlighted the possibility of using the peaks in the area of the bending as a methodology for the recognition of the active principle.**

Following charts are referred to: Follicolinum (Fig.1) and Arnica Montana (Fig.2).

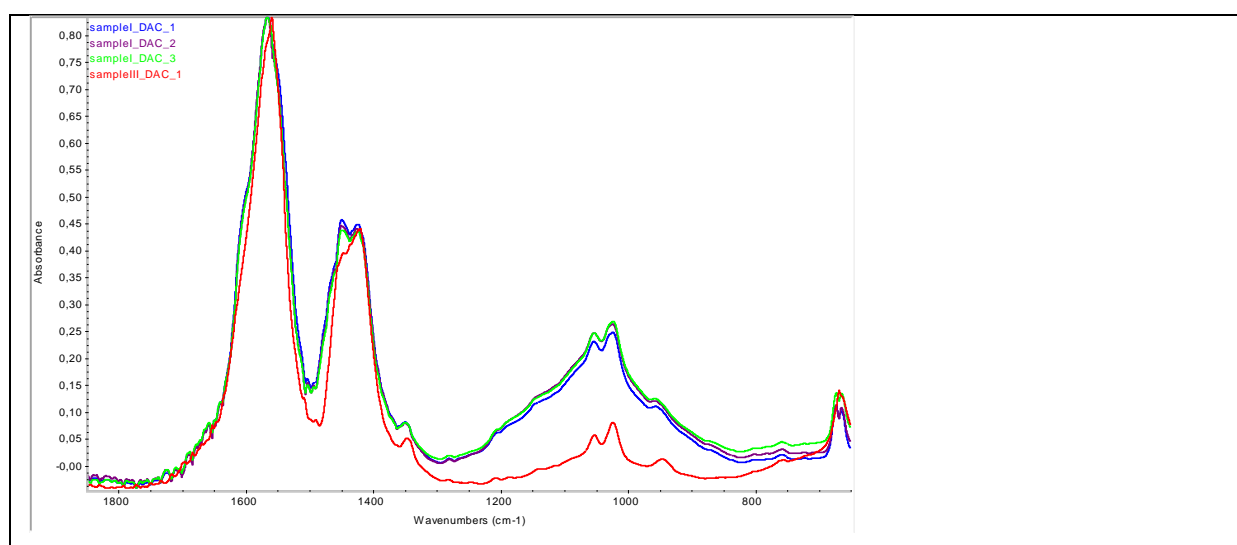


Figure 1

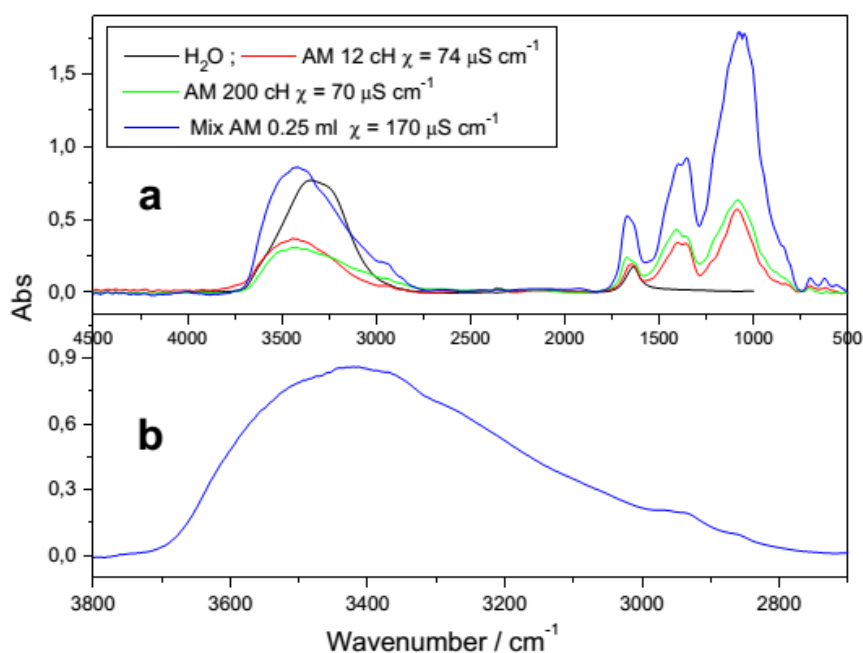


Figure 2

The huge value for the homeopathic industry coming from an "industrial" application of this methodology to carry out the product quality control seems quite obvious. A further line of R&D could also be dedicated to the prospective use of this methodology to the identification of the dilution degree (CH).