



Raman Spectroscopy of High Dilutions of Two Drugs in Aqueous Ethanol Solution Shows Variation in Clathrate Hydrate Crystals

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ABSTRACT

High dilutions (HD) of drugs, used in homeopathy, are too dilute to contain original drug molecules. HDs are prepared by serial dilution of a substance in aqueous EtOH followed by mechanical agitation or succussion. These agitated HDs are called potencies. Mechanical agitation initiates and promotes the process of nucleation. Two potencies of two drugs, *Medorrhinum* (Medor) and *Psorinum* (Psor) were analysed by Laser Raman spectroscopy. The spectra show difference in intensity of CH and OH stretching vibrations in the potencies and the control. The contour shape of each spectrum as analysed by intensity ratios at two frequencies show variation in the hydrogen bonding strength indifferent potencies. The chemical nature of the drugs and different levels of succussion appear to have contributed to the variation in the hydrogen bonding strength of the OH groups in potencies. Clathrate hydrate crystals appear to vary in the potencies of the drugs tested. Succussion helps in the nucleation of the crystals and thus plays an important role in the preparation of potencies. The crystals may be responsible for the biological effects of HDs of drugs and contribute to one of the components in the water structure of a potency.


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