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RESEARCH ARTICLE

## High Dilutions of Drugs Show Distinct Variation from Each Other in their Electronic Spectra

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### ABSTRACT

Drugs at high dilution (HD) produce therapeutic effect on man, animals and plants. Experimental evidence shows that free water molecules and hydrogen bond strength of OH groups constitute the physical basis of HDs which are otherwise devoid of original drug molecules. HDs are produced in aqueous EtOH by serial dilution of a substance with mechanical agitation or succussion in each step, and are called potencies. Three potencies 6 cH, 12 cH and 30 cH of two drugs *Anacardium orientale* and *Natrum muriaticum* (NaCl) and their mother tincture (MT) are used in this study. Electronic spectra of these MTs and potencies, all in 90% EtOH, were taken in the wavelength region of 190 nm – 350 nm. The objective is to find out any additional physico-chemical entities in potencies besides the aforesaid two factors. It was reported earlier that charge transfer (CT) interaction accompanies potentization of drugs. This study focused on the CT interaction. The results indicate that spectral pattern and absorbance intensities of the test samples vary from each other. Potentization involves CT interaction in consecutive potencies. Water and EtOH do not form a homogeneous mixture and have aggregates of EtOH and water molecules. CT interactions occur in these individual aggregates and are mostly inter molecular within EtOH or water. These aggregates vary from each other in the test samples. It is concluded that water and EtOH aggregates and their relative distribution constitute additional physico-chemical basis of potencies.

**Keywords:** High dilution, Electronic Spectra, Water, Ethanol, Charge Transfer.

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