We report high resolution (0.005 cm$^{-1}$) infrared (IR) absorption spectra of doped millimeters-thick parahydrogen (pH$_2$) solids with intentionally elevated residual orthohydrogen (oH$_2$) concentrations. In addition to the weakly-hindered rotor spectrum of isolated H$_2$O molecules, H$_2$O/oH$_2$/pH$_2$ samples exhibit a series of sharp (0.03 cm$^{-1}$ FWHM) absorption peaks in the 1593 to 1597 cm$^{-1}$ region which we show are due to H$_2$O-oH$_2$ clusters. We have also identified CO$_2$-oH$_2$ clusters as the source of the very sharp (0.007 cm$^{-1}$ FWHM) fine structure in IR spectra of CO$_2$/oH$_2$/pH$_2$ solids.$^{a}$ The gradual evolution of the CO$_2$-oH$_2$ features with increasing oH$_2$ concentration raises the interesting notion of spectral inhomogeneity as a discrete, countable entity.