

- Guaiacol co-localizes preferentially at the liquid-air interface at ABV < 45%.
- Is this why standard bottled (40%) tastes so different from cask strength (~55%)? At surface may make it more volatile.
- Further dilution may change more: from 45% ABV to 27% ABV, guaiacol loses ~53% of its EtOH contacts; may be more volatile.

Water (oxygen) bulk density

○ x 3 ● x 8

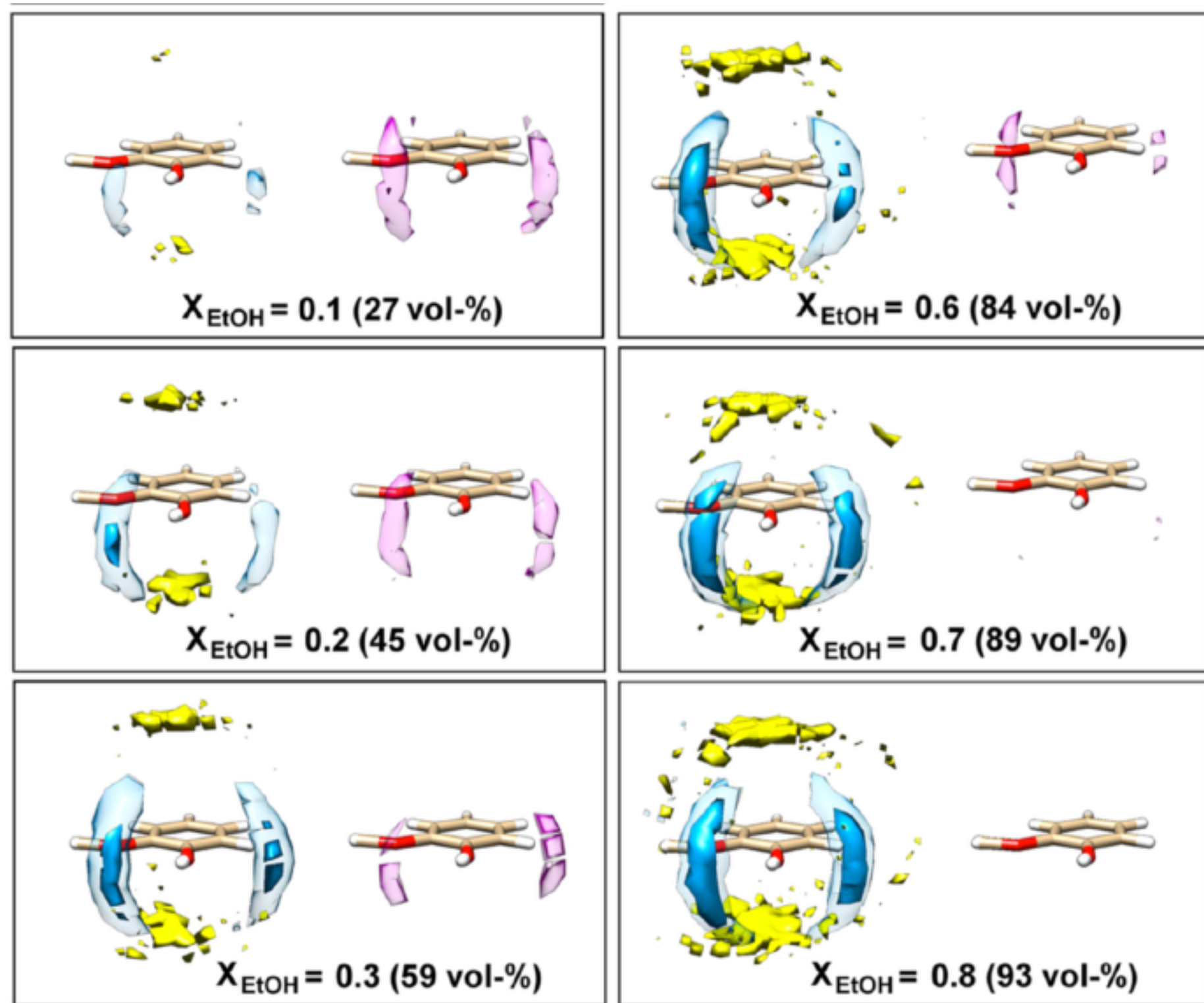
Ethanol (oxygen) bulk density

○ x 3 ● x 8

Ethanol (methyl carbon) bulk density

● x 3

Big changes
 $X=0.1 \rightarrow 0.3$



Atomic spatial distribution functions (SDFs) of water oxygen and EtOH oxygen and methyl carbon components around a single guaiacol molecule in liquid-air interface mixtures of varying EtOH content.