Champagne gases different out of a flute versus coupe

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Champagne just isn't champagne without its bubbles, and a study highlights the effects that champagne glass shape and temperature can have on carbonation upon serving and the drinking experience. The full report is published Feb. 8 in the open access journal *PLoS ONE*.

The researchers, led by Gerard Liger-Belair (GSMA), Guillaume Polidori (GRESPI) and Clara Cilindre (URVVC) of the University of Reims in France, studied the gaseous carbon dioxide and ethanol in the space above the champagne surface after it is poured into either a tall, narrow flute or a wide, shallow coupe. They found a much higher concentration of the gas above the flute than the coupe, which partly accounts for the very different drinking experiences from the two glasses.

These results were also visualized by infrared thermography, which provided images of the gas escaping from the champagne surface. The authors also determined that, surprisingly, decreasing the champagne temperature did not affect the level of carbon dioxide gas above the flute.

These results "might be a precious resource to depict champagne consumer's sensation according to various tasting conditions", says Dr. Cilindre.

More information: Liger-Belair G, Bourget M, Pron H, Polidori G, Cilindre C (2012) Monitoring Gaseous CO2 and Ethanol above

Champagne Glasses: Flute versus Coupe, and the Role of Temperature. *PLoS ONE* 7(2): e30628. doi:10.1371/journal.pone.0030628