

Smoke Affected Wines

Elizabeth Tomasino, Ph.D. – Oregon State University

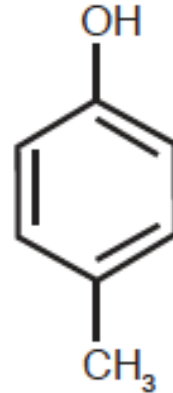
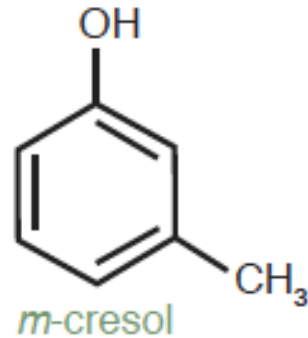
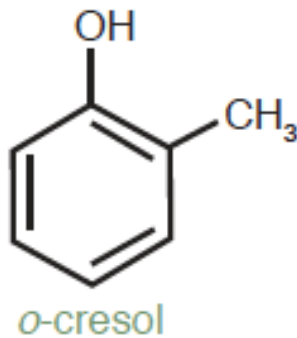
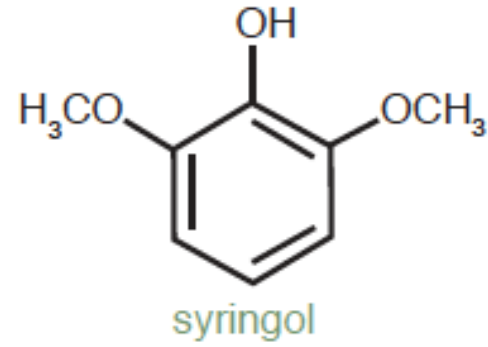
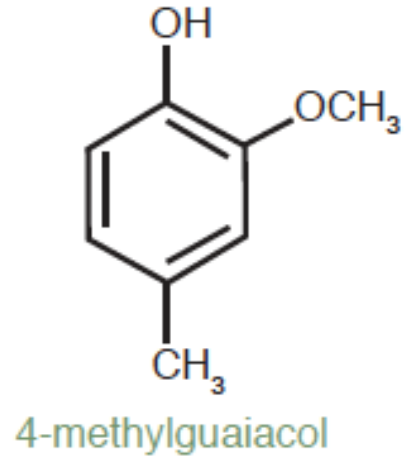
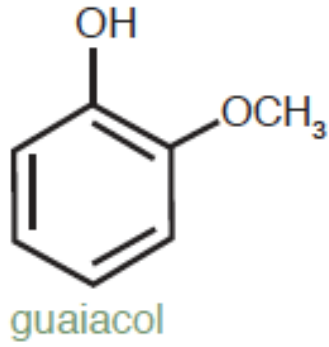


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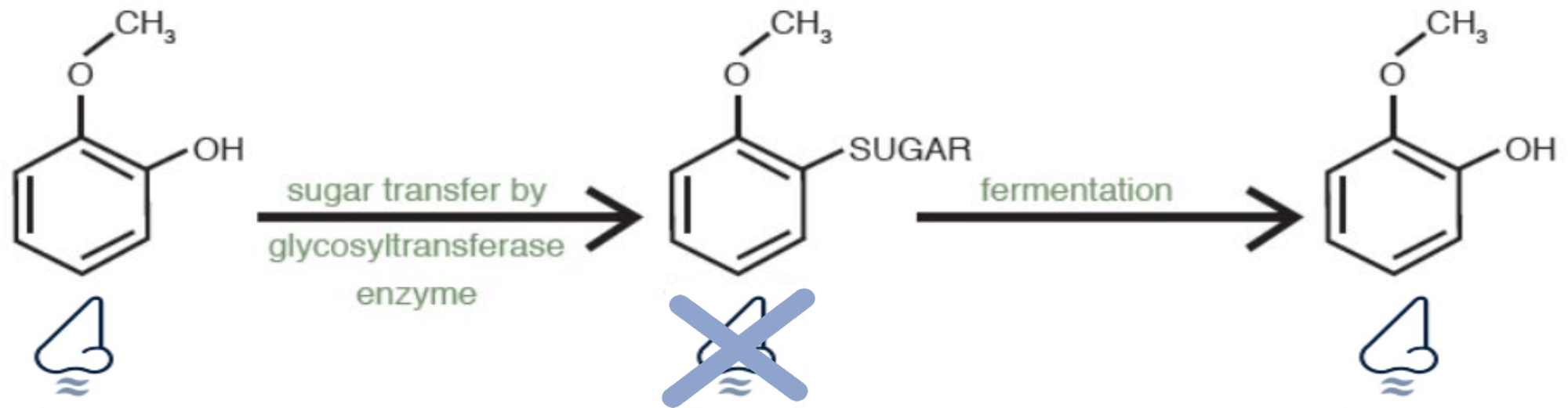
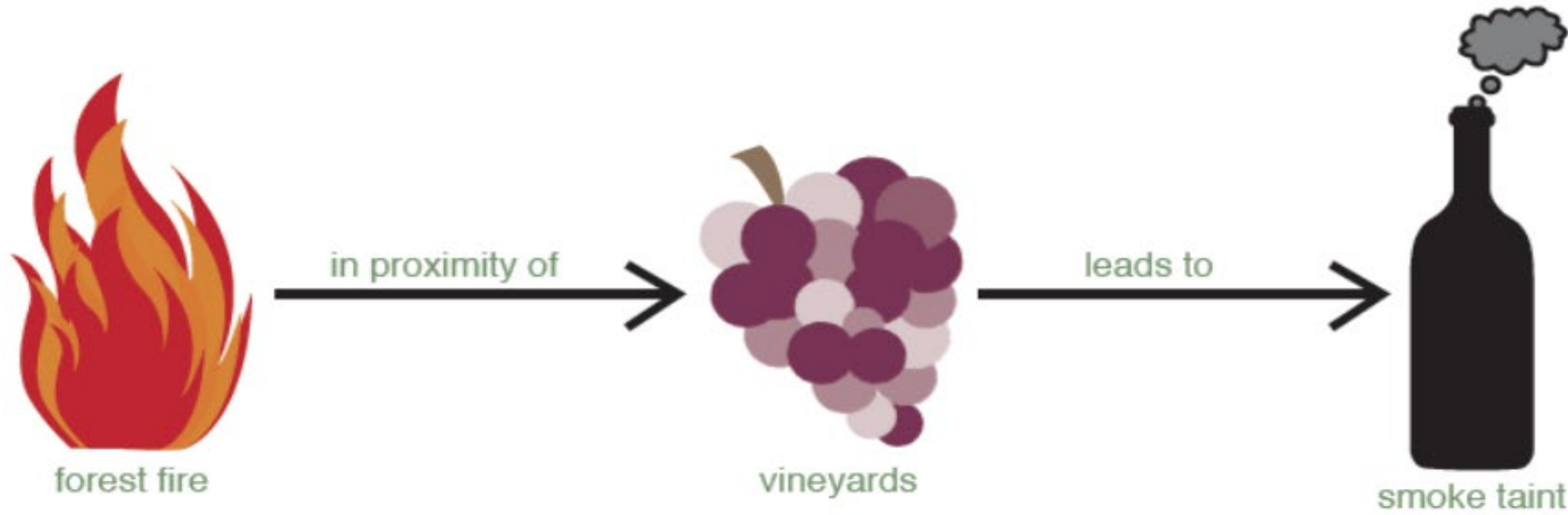


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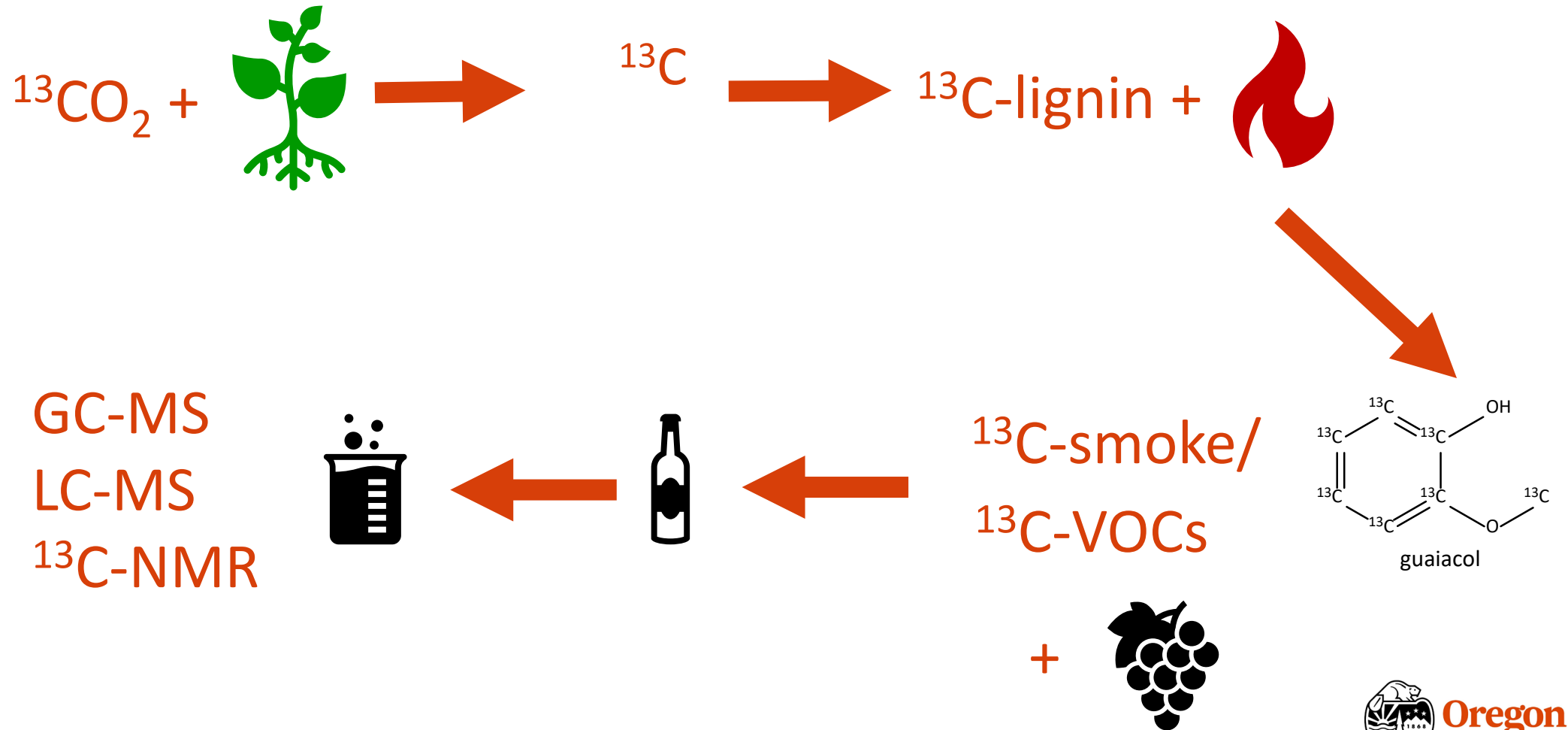
SMOKE-DERIVED VOLATILE PHENOLS

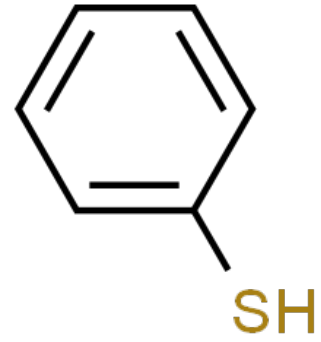


Chemical structures of characteristic smoky aroma volatiles found in smoke from wood fire (guaiacol, 4-methylguaiacol, syringol, *o*-cresol, *m*-cresol, and *p*-cresol), and the naturally occurring grapevine metabolite *trans*-resveratrol.

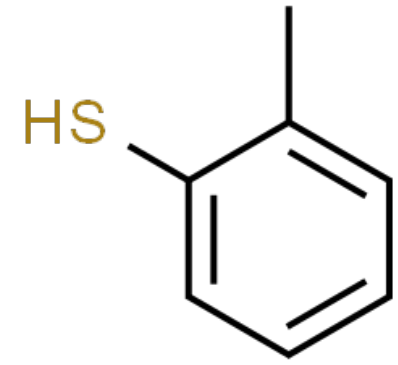


New Smoke Markers

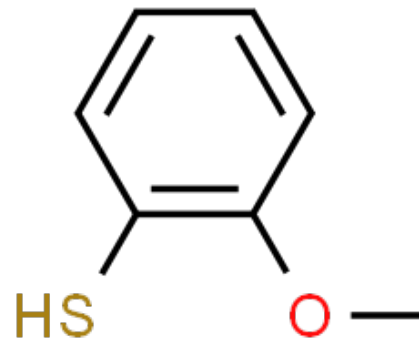




Thiophenol



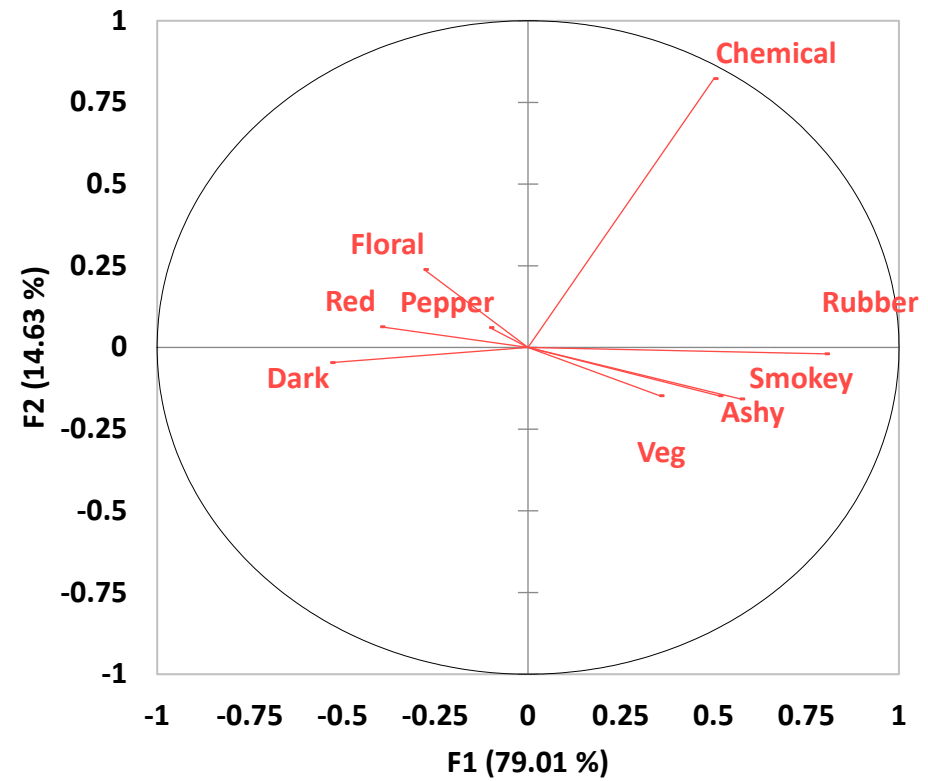
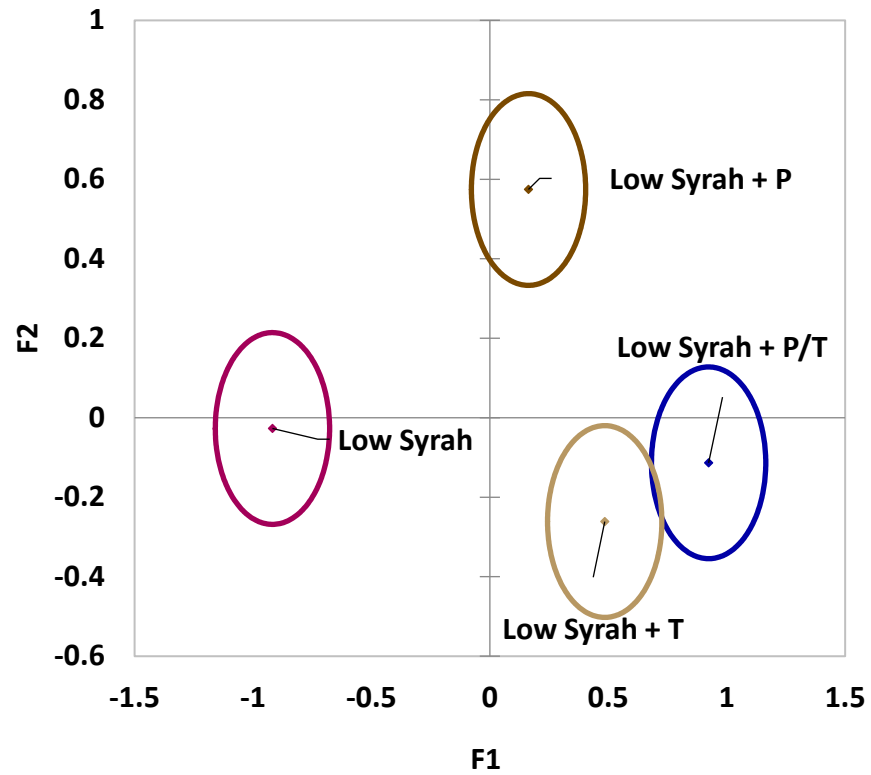
Thiocresol

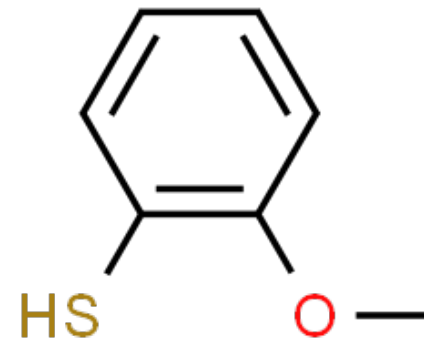
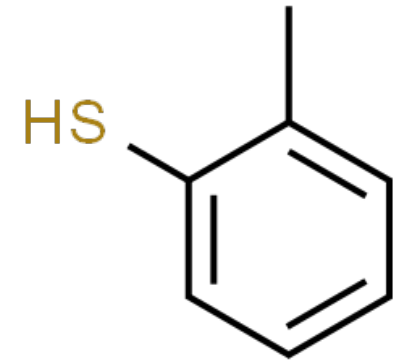
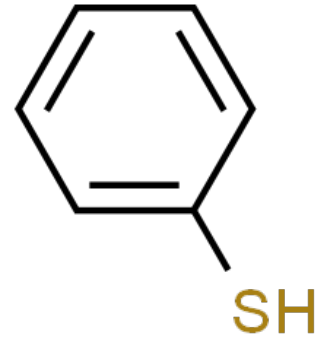


Thioguaiacol

+ other sulfur compounds







Baseline for OR wines from 2022

Pinot noir
Pinot gris
Chardonnay
Syrah
Riesling



Wines & Grapes

Smoke phenols

Bound smoke phenols

Saving samples

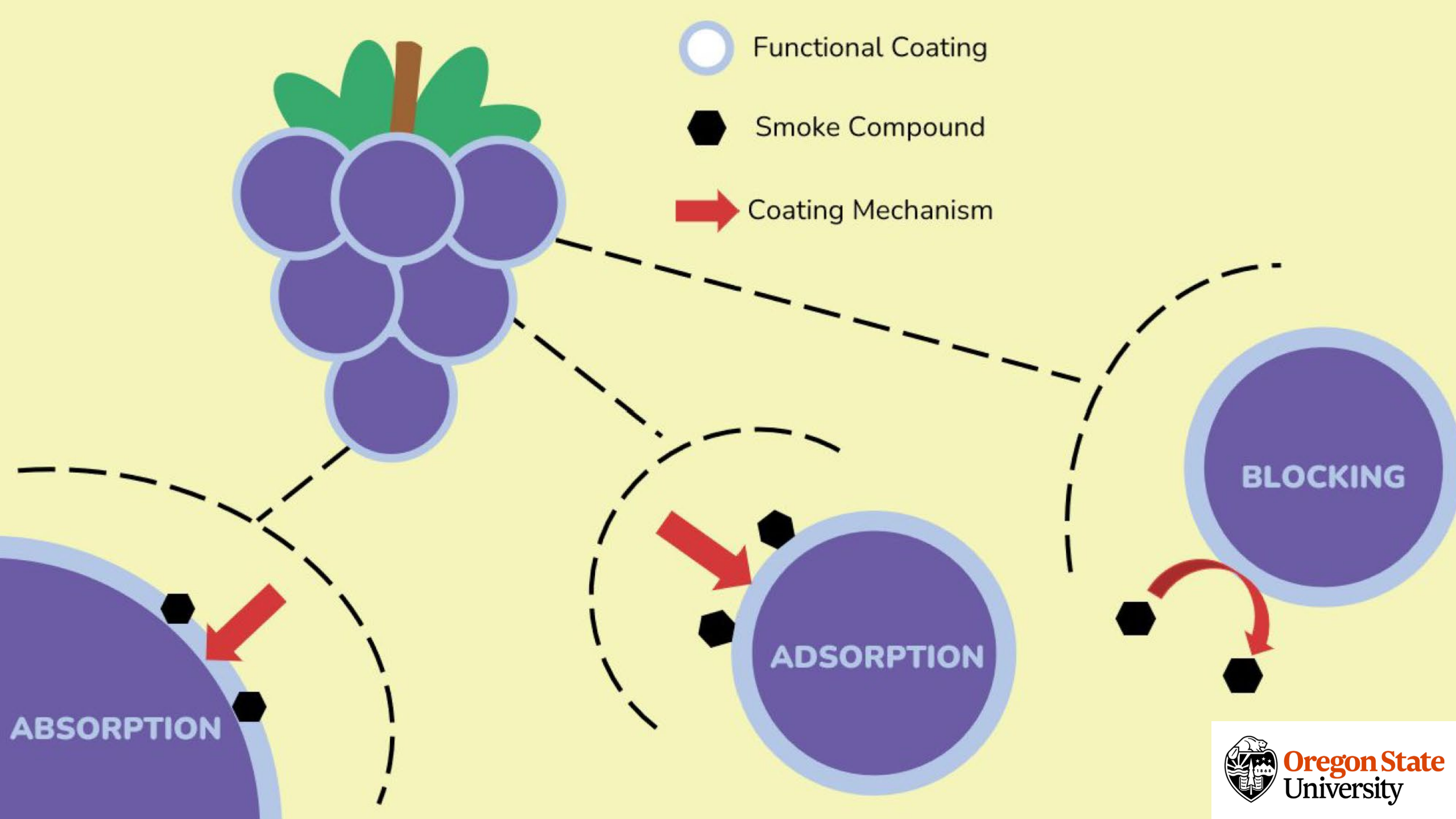
Smoke thiols in wines
& precursors in grapes

Thresholds for smoke compounds

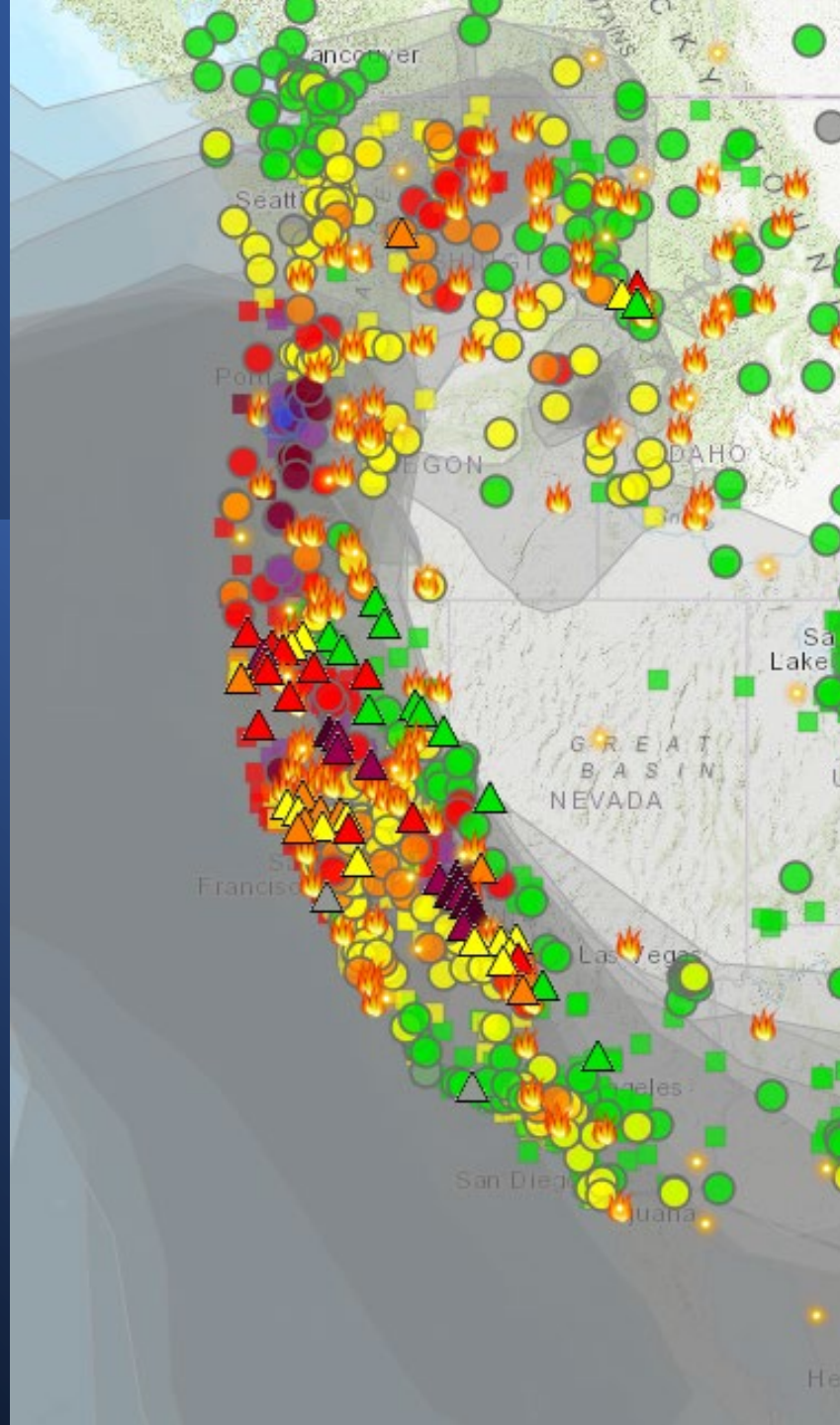
- Multiple types of base wine, i.e.. 3 different Pinot noir wines
- Thresholds for compounds in a mix, smoke thiols & phenols

ASHY





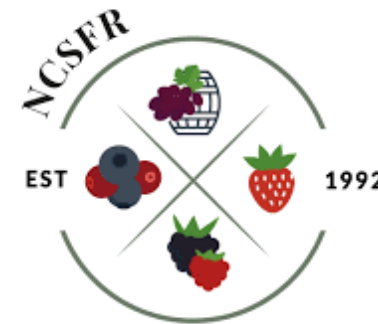
Smoke sensor network



Acknowledgements

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- Dr. Anita Oberholster, Ucdavis
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- Dr. Mike Kleeman, Ucdavis

And many more.....



United States
Department of
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