

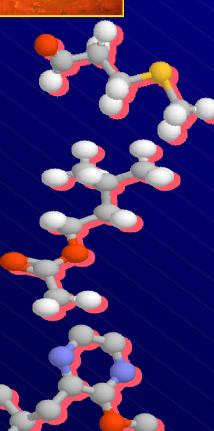
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Scheme illustrating Noblesse actions in rebalancing a wine from its sulfur like off-flavors





# Legend for the following schemes



Ethanthiol: symbolizing the sulfur compounds participating to the sulfur like off-flavors

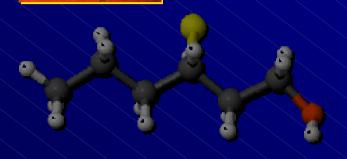
Isoamyl-acetate: symbolizing the esters and other compounds enhancing the sulfur like off-flavors

Methoxy-pyrazin: symbolizing the herbaceous compounds enhancing the sulfur like off-flavors

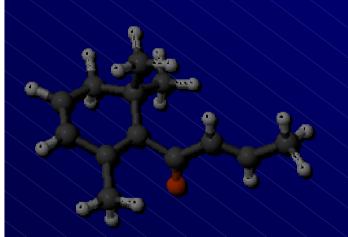




### Legend for the following schemes



Mercapto-hexanol: symbolizing the sulfur compounds participating to the fruity flavors. In gray color: not expressing because covered by negative impacting compounds

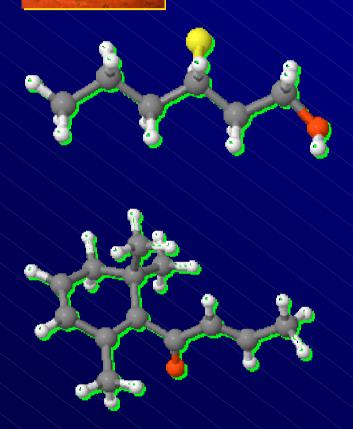


**ß-damascenone:** symbolizing the varietal compounds participating to the fruity flavors. In gray color: not expressing because covered by negative impacting compounds





### Legend for the following schemes



Mercapto-hexanol: symbolizing the sulfur compounds participating to the fruity flavors. In full colors: expressing because in positive interaction with yeast mannoproteins

**ß-damascenone:** symbolizing the varietal compounds participating to the fruity flavors. In full colors: expressing because in positive interaction with yeast mannoproteins



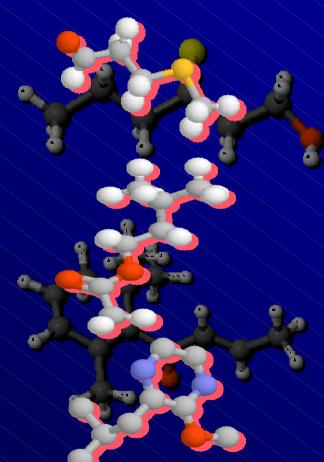


# Noblesse® in action: adsorption

#### **Before**







Comments: sulfur like offflavors are dominant because they are:

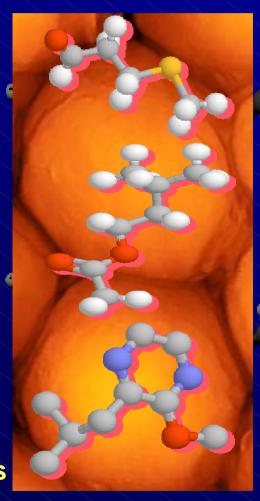
- in too high concentration
- not enough interacting with macromolecules
- sensorially enhanced by some esters and other compounds themselves not well integrated in the wine colloidal matrix



# Noblesse® in action: adsorption

Comments: compounds not well integrated in the colloidal wine matrix are able to be adsorbed on Noblesse cell surface.

Note: 20 g/hl Noblesse are 1 billion/liter small sponges representing about 1 m² /liter of exchanging mannoprotein and glucane complexes



**During** 

Photo: Lallemand

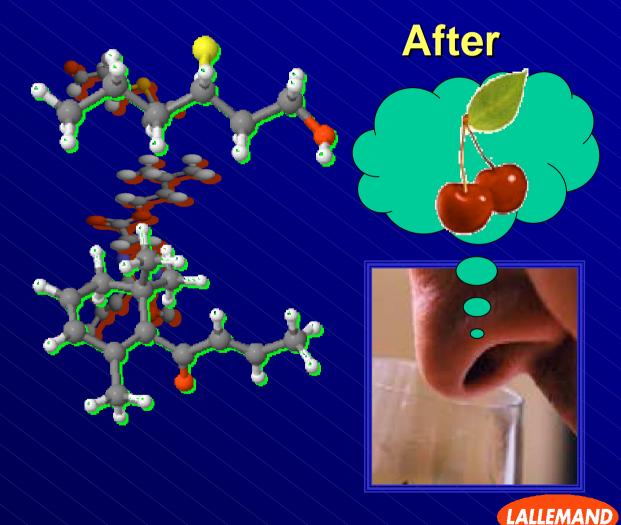
Noblesse cells



Dominique Delteil Consultant document.

# Noblesse® in action: adsorption

Comments: once adsorbed on the cell surface, a part of the sulfur compounds and their enhancing compounds are removed from the wine. The compounds participating to fruity flavors will express better, not being sensorially covered anymore



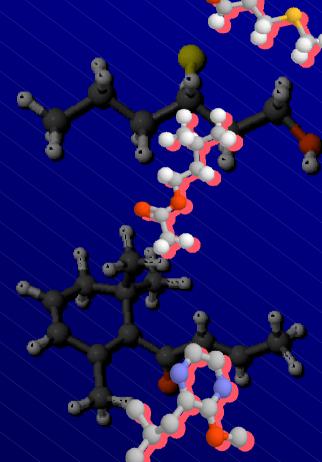
Dominique Delteil Consultant document.

# Noblesse® in action on the colloidal matrix

#### **Before**







Comments: sulfur like offflavors are dominant because they are:

- in too high concentration
- not enough interacting with macromolecules
- sensorially enhanced by some esters and other compounds themselves not well integrated in the wine colloidal matrix

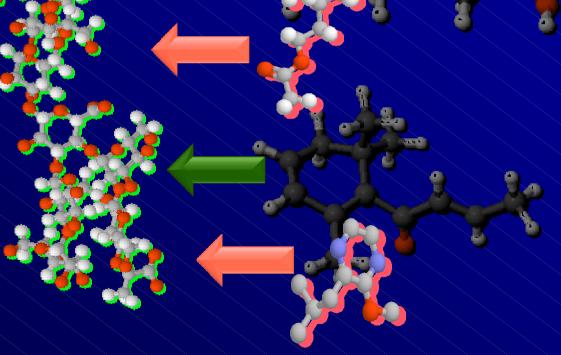


# Noblesse® in action on the colloidal matrix

### **During**

Comments:
macromolecules
released by Noblesse
enter in interactions
with volatile
compounds that were
not well integrated in
the wine colloidal
matrix and were not
adsorbed on Noblesse
cells.

Noblesse colloids



LALLEMAND

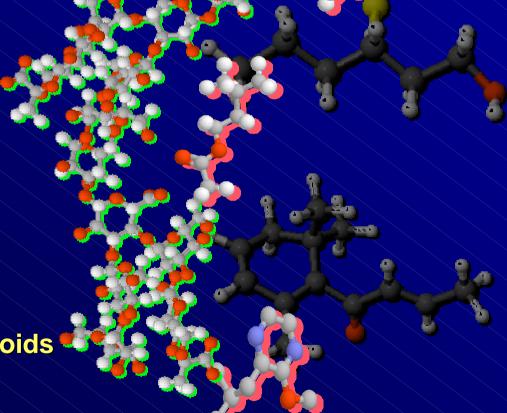
Dominique Delteil Consultant document.

# **Noblesse®** in action on the colloidal matrix

### **During**

Comments: Those interactions change their volatility. As a consequence it diminishes the aggressive perception of sulfur compounds and molecules enhancing their expression, on the nose and the mouth.

Noblesse colloids

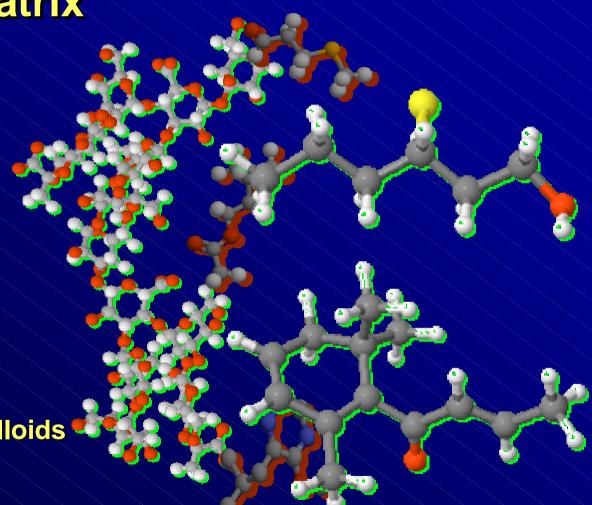




# Noblesse® in action on the colloidal matrix

#### After

Comments: Those interactions change their volatility. As a consequence it enhances the ripe fruity expression of fruit impacting molecules



Noblesse colloids



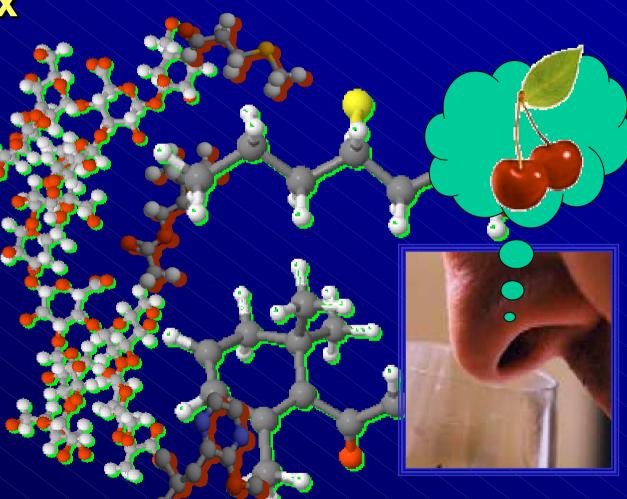
Dominique Delteil Consultant document.

# **Noblesse®** in action on the colloidal matrix

#### After

Comments: Diminishing the aggressivity of sulfur compounds and enhancing the fruity perception of certain thiols and varietal compounds, those interaction develop the fruity perception of the wine. The colloidal matrix is upgraded for its concentration and it is stabilized giving a better longevity

Noblesse colloids





Dominique Delteil Consultant document.