[XⱮMTEX-Tips 100117b]
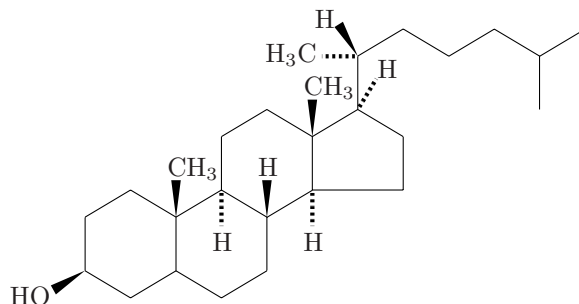# Fonts in Chemical Structural Formulas

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January 17, 2010

Question:

The XⱮMTEX system uses a roman font to draw chemical structural formulas. For example, the code `\cholestane{3B==HO}` produces the following structural formula:

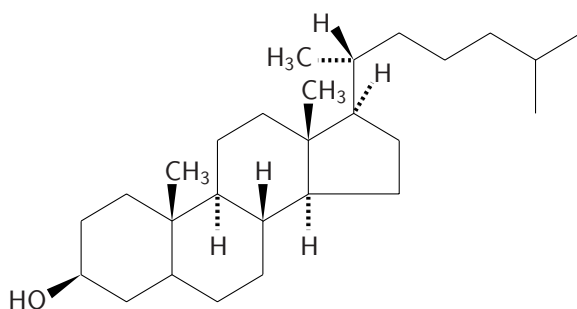How can we change such a font family and/or font sizes?

Answer:

Because font families and sizes in such chemical structural formulas are specified by the following codes:

```
\let\substfont=\normalfont
\let\substfontsize=\normalsize
```

they should be replaced by appropriate fonts and sizes. In order to obtain formulas with sanserif fonts, for example, the following code:

```
%\usepackage{xymtexps}
\begin{center}
\let\substfont=\sf
\everymath{%
\font\newXyMscript=cmss10 at 7pt
\scriptfont0=\newXyMscript}
\cholestane{3B==HO}
\end{center}
```

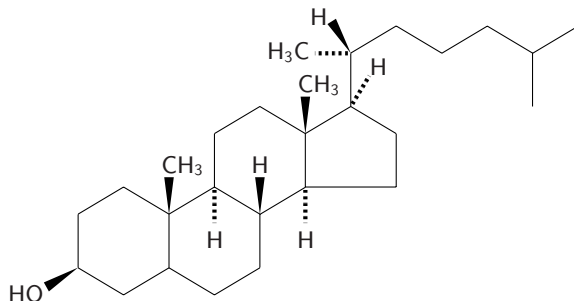produces a structural formula as follows:

Note that `\substfont` is not effective in changing subscripts of substitutents. Hence, the font register `\scriptfont0` is set appropriately in the token register `\everymath`.

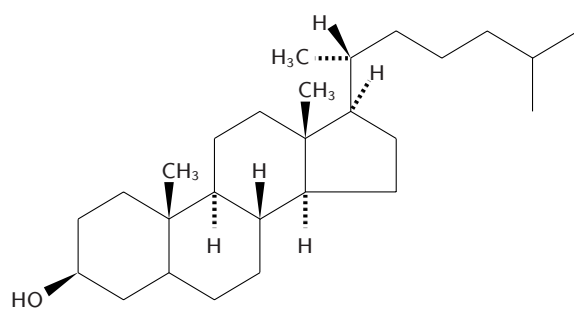The command `\substfontsize` is used to reduce the sizes of fonts for substituents. For example, the code:

```
\begin{center}
\let\substfont=\sf
\let\substfontsize=\small
\everymath{%
\font\newXyMscript=cmss10 at 6pt
\scriptfont0=\newXyMscript}
\cholestane{3B==HO}
\end{center}
```

typesets the following formula:

On a similar line, another formula with smaller subsituents of sanserif fonts can be obtained as follows:

```
\begin{center}
\let\substfont=\sf
\let\substfontsize=\footnotesize
\everymath{%
\font\newXyMscript=cmss8 at 5pt
\scriptfont0=\newXyMscript}
\cholestane{3B==HO}
\end{center}
```

For further information, please refer to Chapter 36 of the following book:

Shinsaku Fujita, "LaTeX 2_ε Kaitei (3rd Ed.)", Vol. 2 (Pearson Education Japan, 2009).