ConTeXt

1 `\startmodule[chromato]`

2 `\writestatus{loading}{Macros for chromatograms}`

This parameter is needed because `\setupcaptions[align=hanging]` does not work (see also `http://context.literatesolutions.com/collector/82`).

3 `\setupmodule[captionhanging=off]`

4 `\unprotect`

5 `\processaction[\currentmoduleparameter{captionhanging}]`
`               [        on=>\def\Caption@Hanging{\setupalign[hanging]},`
`         \v!unknown=>\def\Caption@Hanging{},`
`         \v!default=>\def\Caption@Hanging{}]`

Some internal dimensions:

6 `\doifundefined{Width}{\newdimen\Width}`
`\doifundefined{Height}{\newdimen\Height}`

`\startChro..` Starting a chromatogram.

7 `\def\startChromato{\bgroup\dosingleempty\dostartChromato}`
`\def\dostartChromato[#1]#2#3{\getparameters[CHROM][dim=0.6,#1]`
`  \def\myChromFig{\doifdefinedelse{CHROMSdim}{%`
`    \externalfigure[#2][height=\CHROMSdim\textheight]}{%`
`    \externalfigure[#2][width=\CHROMdim\makeupwidth]}}%`
`  \setbox\scratchbox\hbox{\myChromFig}%`
`  \Width=\wd\scratchbox \Height=\ht\scratchbox \setuppositioning[unit=pt]`
`  \gdef\SavedCaption{#3}\doifundefined{CHROMSdim}{\placefigure[][fig:#2]{%`
`    \Caption@Hanging#3}}%`
`  \bgroup\startpositioning\position(0,0){\myChromFig}}`

`\stopChrom..` End of chromatogram.

8 `\def\stopChromato{\stoppositioning\egroup\egroup{\doifdefined{CHROMSdim}{%`
`     \SavedCaption}}}`

`\startChro..` Begin set of of chromatograms.

9 `\def\startChromatos{\dosingleempty\dostartChromatos}`
`\def\dostartChromatos[#1]#2#3{\placefigure[][fig:#2]{%`
`    \Caption@Hanging#3}\bgroup`
`  \getparameters[CHROMS][dim=0.3,#1]`
`  \doifdefined{CHROMSdist}{\setupcombinations[distance=\CHROMSdist em]}%`
`  \startcombination[2*1]}`

`\stopChrom..` End of chromatograms.

10 `\def\stopChromatos{\stopcombination\egroup}`

Internal macro: position left or right:

Macros for chromatograms

```
11  \define[3]\LRposition{\edef\YPos{\withoutpt{\the\dimexpr(\withoutpt{%
        \the\dimexpr(#1pt/100)}\Height - 0.1\baselineskip)}}%
    \position(#2,\YPos){\vbox to 2pt{\vss{\hbox to 0pt{#3}\vss}}}}
```

\Lbrace   Place a brace at the left.

```
12  \define[4]\Lbrace{\LRposition{#1}0{\hss\rotate[rotation=90]{%
        $\overbrace{\hskip#2\Height}^{%
            \displaystyle\text{\rotate[rotation=270]{#4}}}$}\hskip#3em}}
```

\Rbrace   Place a brace at the right.

```
13  \define[4]\Rbrace{\LRposition{#1}{\withoutpt{\the\Width}}{\hskip#3em
        \rotate[rotation=270]{$\overbrace{\hskip#2\Height}^{%
            \displaystyle\text{\rotate[rotation=90]{#4}}}$}\hss}}
```

\Larrow   Place a flesh at the left.

```
14  \define[2]\Larrow{\LRposition{#1}0{\hss{\tx#2} $\rightarrow$}}
```

\Rarrow   Place a flesh at the right.

```
15  \define[2]\Rarrow{\LRposition{#1}{\withoutpt{\the\Width}}{$\leftarrow$ \tx#2}}
```

\Above   Place something above the chromatogram.
\Abrace
```
16  \define[3]\Oposition{\edef\XPos{\withoutpt{\the\dimexpr(\withoutpt{%
        \the\dimexpr(#1pt/100)}\Width)}}%
    \position(\XPos,-\withoutpt{\the\dimexpr(#2\baselineskip)}){%
    \hbox to 0pt{\hss#3\hss}}}
\define[2]\Above{\Oposition{#1}{0.8}{\tx#2}}
\define[3]\Abrace{\Oposition{#1}{2.5}{%
    $\overbrace{\hskip#2\Width}^{\displaystyle\text{#3}}$}}
```

```
17  \protect
```

```
18  \stopmodule
```

```
19  \doifnotmode{demo}{\endinput}
```

Usage example:

```
20  \usemodule[chromato]
\enableregime[il1]
\mainlanguage[de]
\starttext
\startChromato{ecolizeit}{Expression der rekombinanten Fucosyltransferase~V in
  {\em E.~coli}.}
 \Above{5}{BRS}\Above{15}{1h}\Above{26}{2h}\Above{38}{3h}\Above{50}{4h}
 \Above{61}{1h}\Above{72}{2h}\Above{83}{3h}\Above{94}{4h}
 \Larrow{12}{97\,kDa}\Larrow{20}{66\,kDa}
 \Larrow{32}{45\,kDa}\Larrow{52}{31\,kDa}
 \Lbrace{39}{0.75}{4}{A}
 \Lbrace{90}{0.16}{4}{B}
 \Abrace{32}{0.42}{löslich}
 \Abrace{77}{0.42}{unlöslich}
 \Rarrow{29}{FucT~V}\Rarrow{87}{FucT~V}
```

```
\stopChromato
\startChromatos[dim=0.17,dist=2]{saeuger}{Expression von rekombinanter
  Fucosyltransferase~V in unterschiedlichen Säugerzellinien.}
  \startChromato{saeuger}{A}
    \Above{26}{CHO}\Above{74}{HEK}
    \Larrow{4}{96\,kDa}\Larrow{37}{66\,kDa}\Larrow{81}{45\,kDa}
  \stopChromato
  \startChromato{saeugerred}{B}
    \Above{26}{CHO}\Above{74}{HEK}
    \Rarrow{81}{FucT~V}
  \stopChromato
\stopChromatos
\stoptext
```