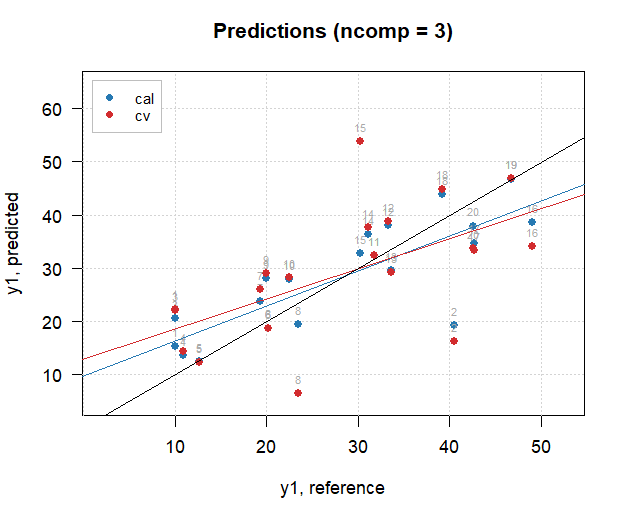
**Pb detection by multisensory system**

Predicted vs measured plot after removing point '0'. The 3-component model selected due to reasonable value of X and Y cumvariance.

Изображение выглядит как текст

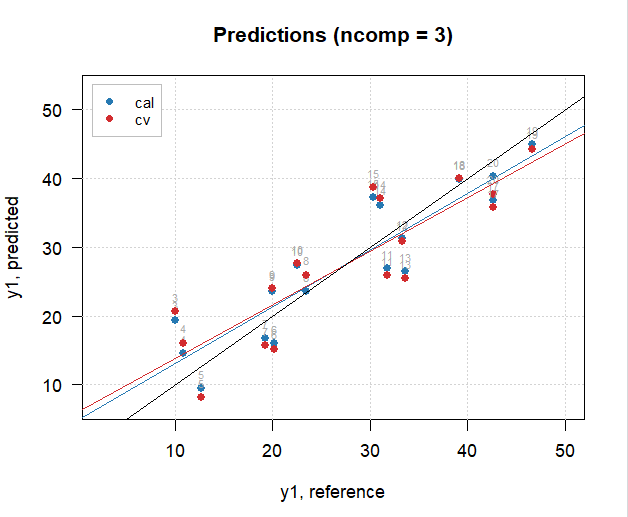
Автоматически созданное описание



Predicted vs measured plot after removing points '0', '2', '16', '1' and cleaning X-variables (TPDO, T100K10, PbGl and CdGl was left). 3 components were chosen. It is also possible to remove point 3.

Изображение выглядит как текст

Автоматически созданное описание



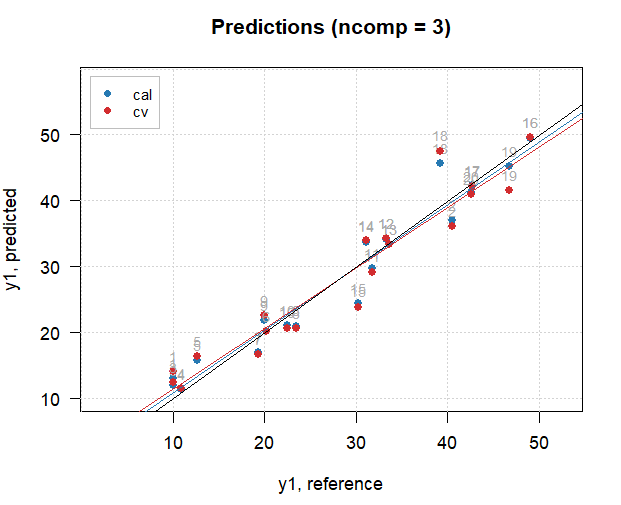
**Pb detection by the electrochemical sensor**

The X-variable represent average sensors responses from 3 repetitions. The repetitions were preliminary selected based on PCA results.

Predicted vs measured plot before removing point outliers (there are no point ‘0’ in the dataset).

**Изображение выглядит как текст

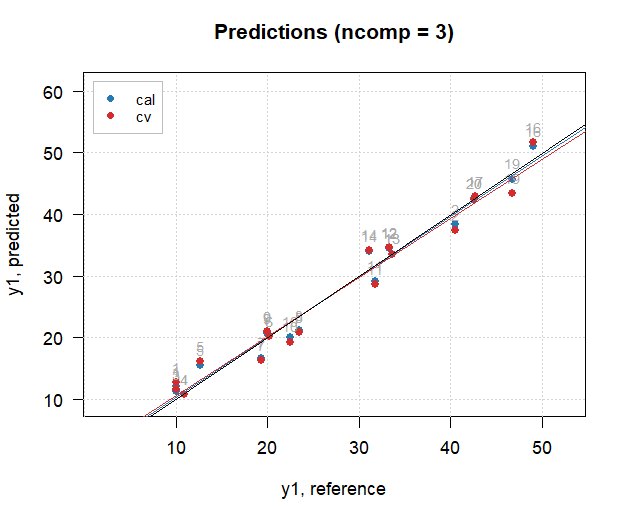
Автоматически созданное описание**

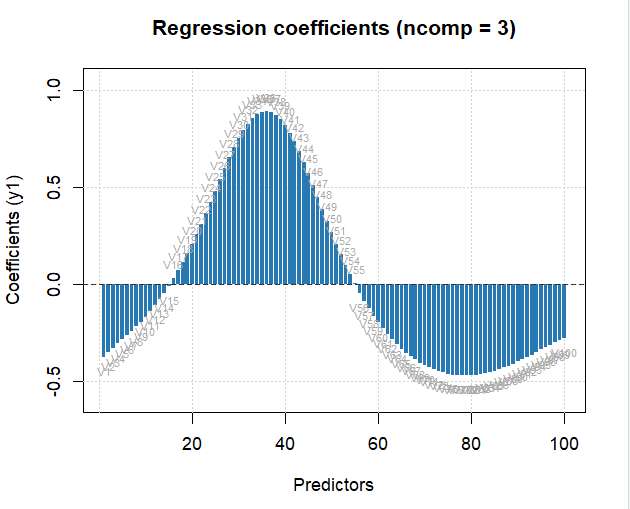
****

Predicted vs measured plot after removing points '18', '15'.

**Изображение выглядит как текст

Автоматически созданное описание**

****

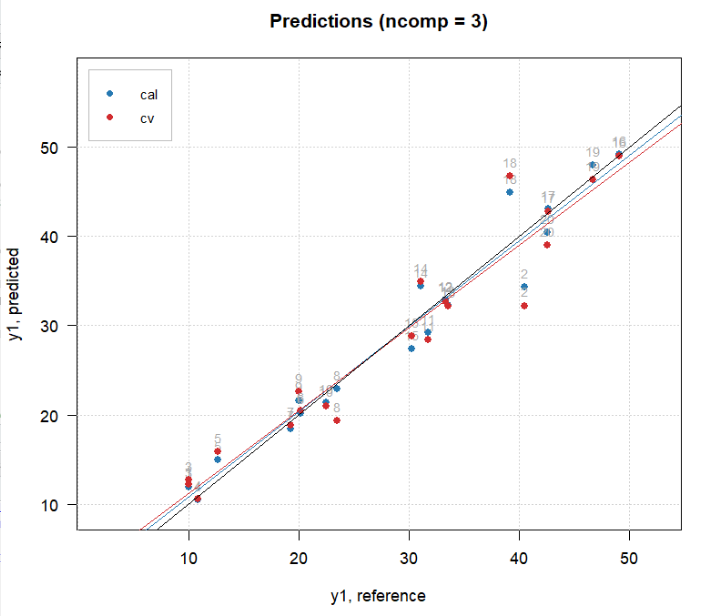


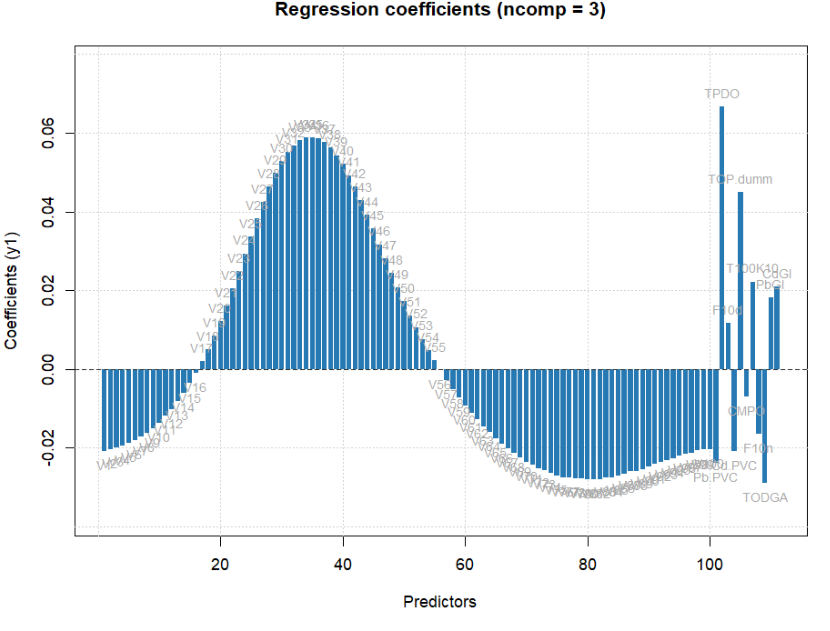
**Pb detection by data fusion**

Before removing the outliers (no point 0):

Изображение выглядит как текст

Автоматически созданное описание

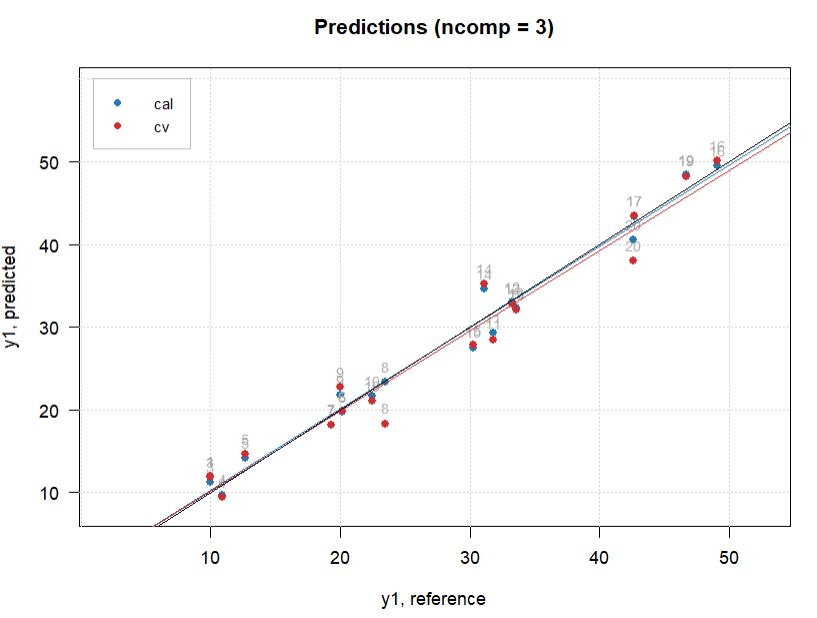


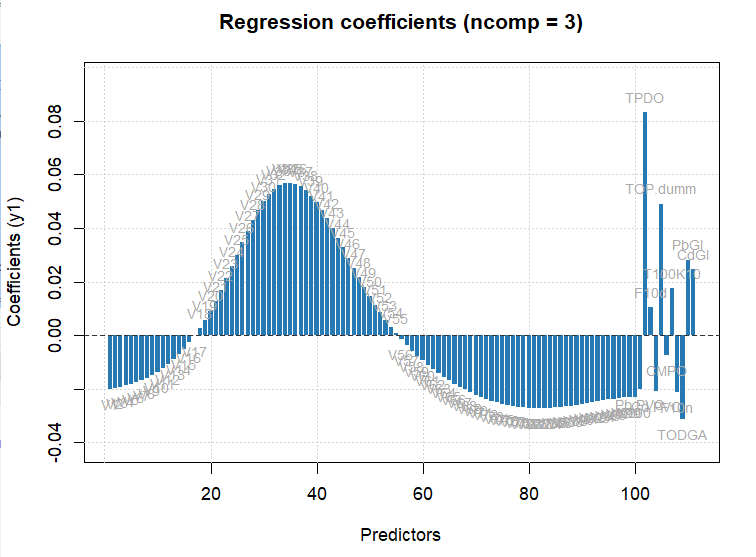


After removing points 2 and 18:

Изображение выглядит как текст

Автоматически созданное описание

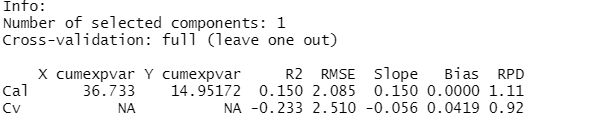


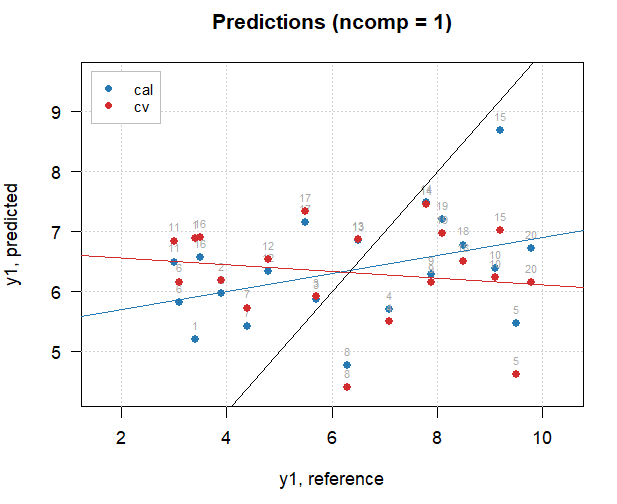


**Cd detection by multisensory system**

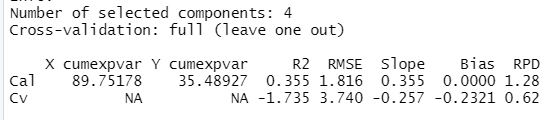
Before removing any points except for 0:

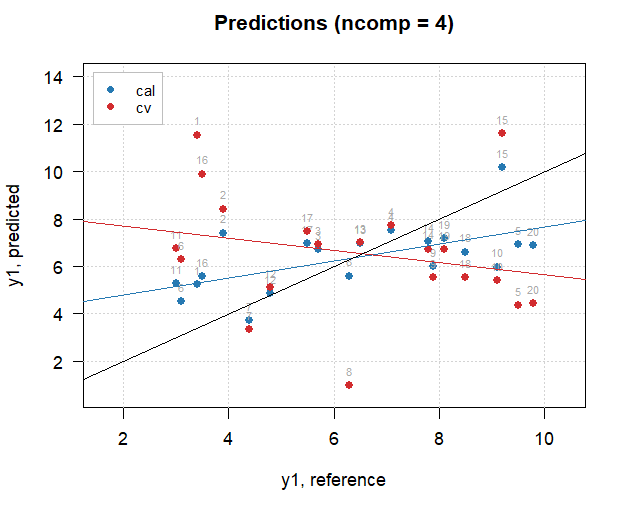
1. 1-component model



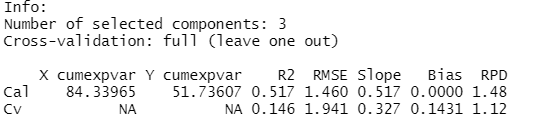


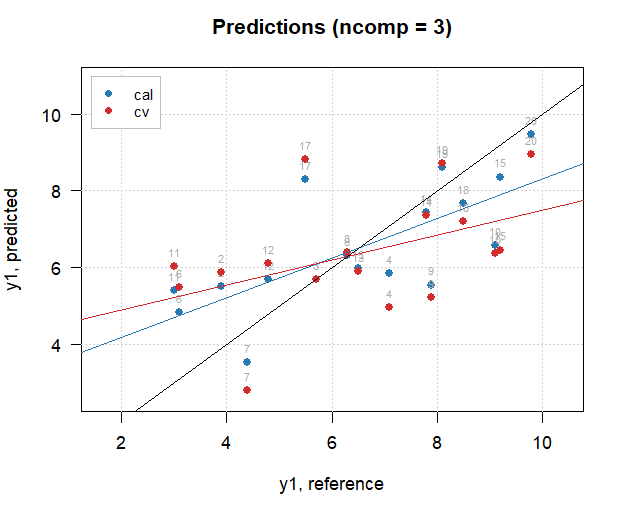
1. 4-component model

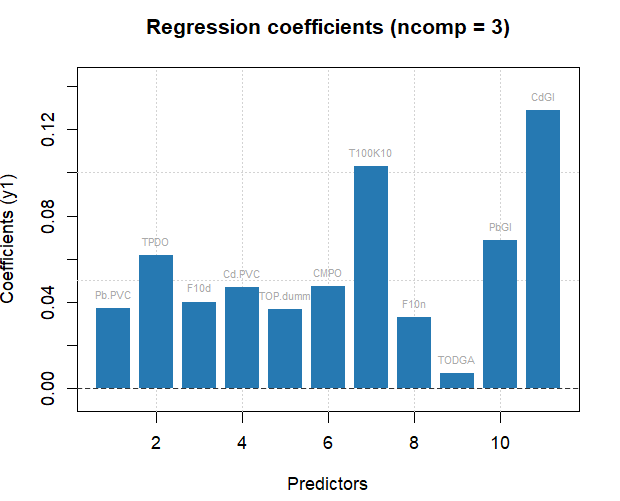




Predicted vs measured plot after removing points '0', '1', '16', '5'. 3 components were chosen to provide better X-CumVariance. Despite the removing of possible outliers, the RMSECV and Y-CumVariance are still poor. Besides, regression coefficients seem overfitted.



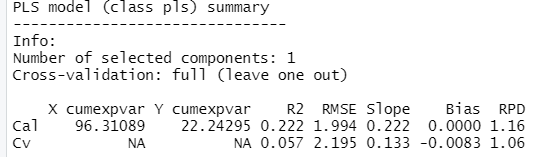


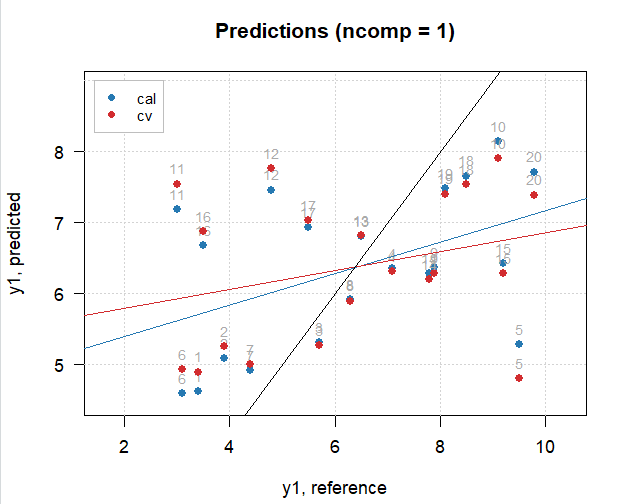


**Pb detection by the electrochemical sensor**

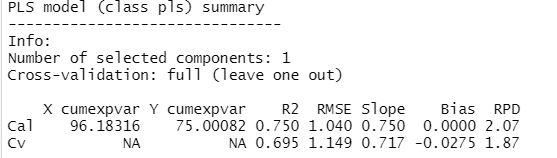
PCA showed that the 1st replica has the best correlation between variables, therefore it was chosen for the analysis.

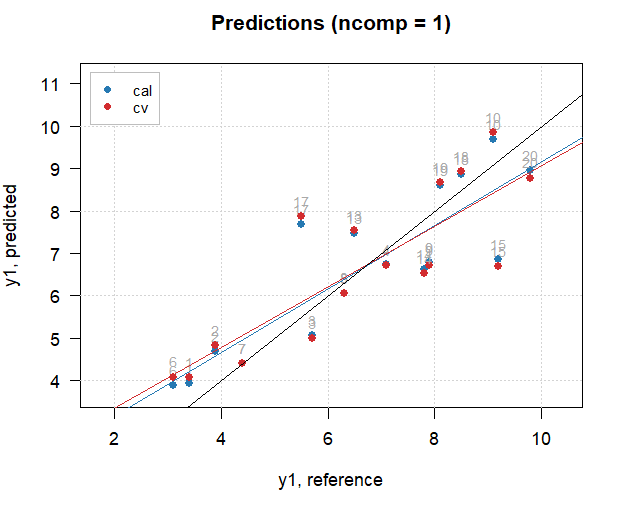
Results for the data with all points except for “0”. Only 1-component model represents the normal behavior of the regression coefficients (although it gives poor Y-CumVariance).

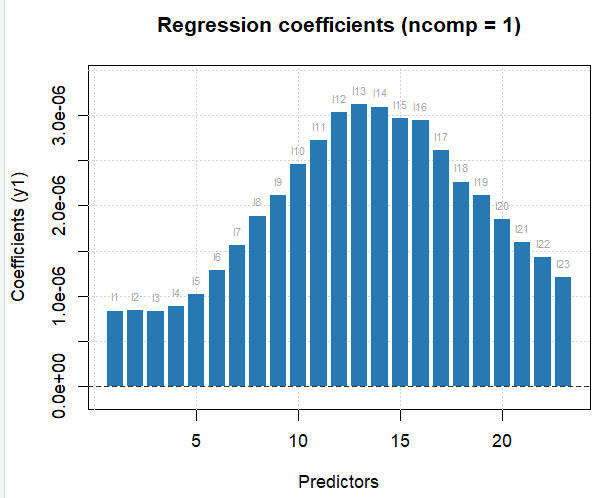




Predicted vs measured plot after removing points '0','11', '5', '12', '16'.







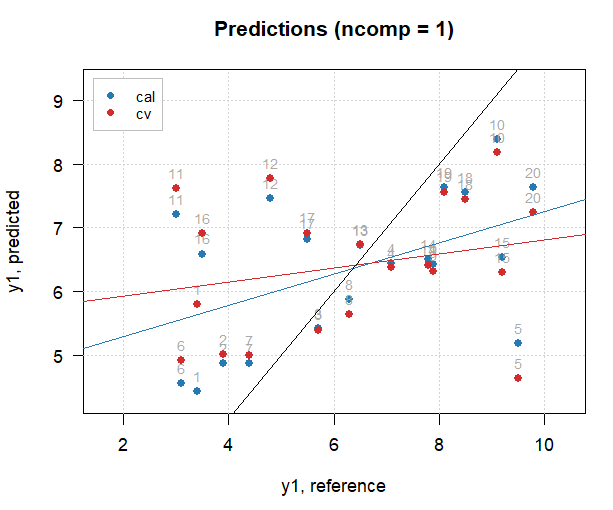
**Cd detection by data fusion**

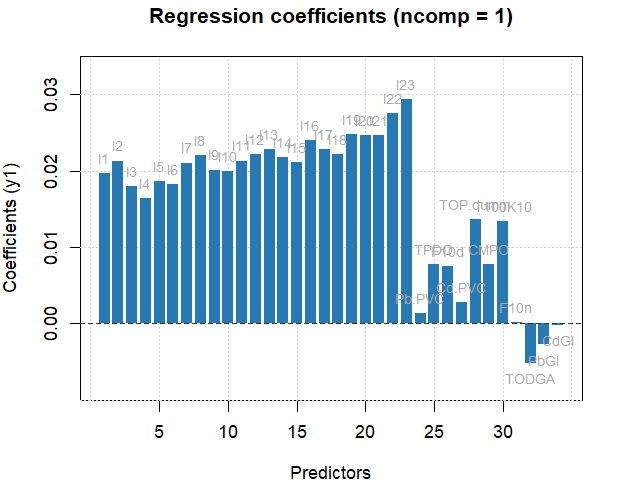
Before removing any points except for 0:

**Изображение выглядит как текст

Автоматически созданное описание**

(1-component so that minimum RMSECV)





Predicted vs measured plot after removing points '0', '11', '5', '12', '16'. Applying more than 1 component increases the RMSECV/C.

Изображение выглядит как текст

Автоматически созданное описание

