# Alcohol QCM Sensor Dataset Data Set

*Download*: Data Folder, Data Set Description

**Abstract**: Five different QCM gas sensors are used, and five different gas measurements (1-octanol, 1-propanol, 2-butanol, 2-propanol and 1-isobutanol) are conducted in each of these sensors.

| Data Set Characteristics: | Multivariate | Number of Instances: | 125 | Area: | Computer |
|---|---|---|---|---|---|
| Attribute Characteristics: | Real | Number of Attributes: | 8 | Date Donated | 2019-07-22 |
| Associated Tasks: | Classification, Regression, Clustering | Missing Values? | N/A | Number of Web Hits: | 13903 |

## Source:

Provide the names, email addresses, institutions, and other contact information of the donors and creators of the data set.
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## Data Set Information:

In the dataset there are 5 types of dataset.
QCM3, QCM6, QCM7, QCM10, QCM12

In each of dataset, There is alcohol classification of five types,
1-octanol, 1-propanol, 2-butanol, 2-propanol, 1-isobutanol

## Attribute Information:

The gas sample is passed through the sensor in five different concentrations. These concentrations are,
Concentration Air ratio (ml) Gas ratio (ml)
1 0.799 0.201
2 0.700 0.300
3 0.600 0.400
4 0.501 0.499
5 0.400 0.600

There are two channels in the sensor. One of these circles forms channel 1, and the other forms channel 2. MIP and MP ratios used in the QCM sensors are,

Sensor name MIP ratio NP ratio
QCM3 1 1
QCM6 1 0
QCM7 1 0.5
QCM10 1 2
QCM12 0 1