

ProtoPHYSCHEM

ProtoPHYSCHEM is a computational (*in silico*) tool focused on the prediction of endpoints related with the physicochemical properties of chemical substances.

ProtoPHYSCHEM mainly includes, but is not limited to, endpoints used by REACH, a European Union regulation, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry.

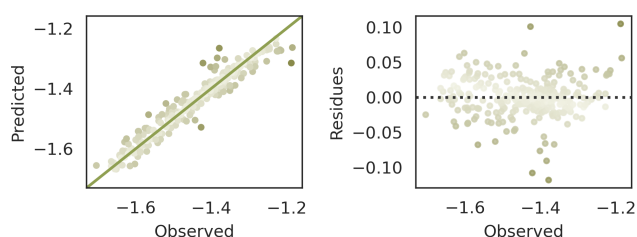
Endpoint

Physical-chemical properties: Surface tension.

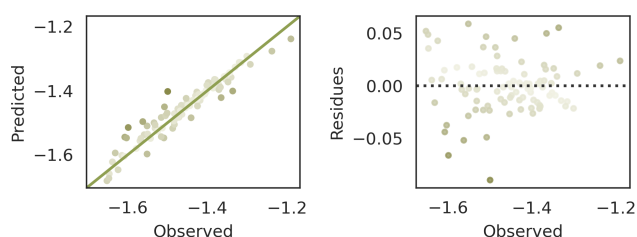
The free surface enthalpy per unit of surface area is referred to as surface tension. The surface tension is given as: N/m or mN/m (1mN/m = 1 dyne/cm). The surface tension of an aqueous solution of a substance can be used to determine whether the substance is surface active (surfactant).

Metrics

Training set



Validation set



Parameters	Training	Validation
R ² score	0.93	0.92
Mean absolute error (MAE)	0.02	0.02
Mean squared error (MSE)	0.00	0.00
Median absolute error	0.01	0.01
Explained variance	0.93	0.92