NAME

iapws - Compute light and heavy water properties.

SYNOPSIS

iapws *SUBCOMMAND* [OPTION...]

DESCRIPTION

iapws is a command line interface for computing properties of light and heavy water according to IAPWS.

SUBCOMMANDS

Valid subcommands are:

+kh Compute the Henry's constant for gases in H2O or D2O. The default behavior is to compute the constant kH for O2 at 25°C. See options.

+kd Compute the vapor-liquid distribution constant for gases in H2O or D2 The default behavior is to compute the constant kD for H2 at 25°C. See options.

+psat Compute the saturation pressure. The default behavior is to compute psat at 25°C. See options.

+Tsat Compute the saturation temperature. The default behavior is to compute Tsat at 1 bar. See options.

Their syntax is:

+kh [OPTION...]

+kd [OPTION...]

+psat [OPTION...]

+Tsat [OPTION...]

OPTIONS

kh:

--temperature, -T TEMPERATURE...
Temperature in °C. Default to 25°C.

--fugacity, -f FUGACITY...
Liquid-phase fugacity in MPa. Default to 1 b

--gases, -g GAS...
Gases for which to compute kH. Default to O2

--D2O Set heavywater as the solvent.

--listgases
Display available gases for computing kH.

kd:

--temperature, -T TEMPERATURE...
Temperature in °C. Default to 25°C.

--x2, -x x2...
Molar fraction of gas in water. Default to 1

--gases, -g GAS...
Gases for which to compute kD. Default to H2

--D2O, Set heavywater as the solvent.

--listgases
Display available gases for computing kD.

psat:

--temperature, -T TEMPERATURE...
Temperature in °C. Default to 25°C.

Tsat:

--pressure, -p PRESSURE...
Pressure in bar. Default to 1 bar.

all:

--usage, -u
Show usage text and exit.

--help, -h
Show help text and exit.

--verbose, -V
Display additional information when availabl

--version, -v
Show version information and exit.

EXAMPLE

Minimal example

```
iapws kh -T 25,100 -f 1,0.2 -g O2,H2

iapws kd -T 25,100 -x2 1d-9,1d-6 -g O2,H2
```

SEE ALSO

ciaaw(3), **codata**(3)