

**NAME**

**iapws** - Compute light and heavy water properties.

**SYNOPSIS**

**iapws** *SUBCOMMAND* [*OPTION* . . .]

**DESCRIPTION**

**iapws** is a command line interface which computes the properties of light and heavy water according to IAPWS.

**SUBCOMMANDS**

Valid subcommands are:

- +kh**     Compute the Henry's constant for gases in H<sub>2</sub>O or D<sub>2</sub>O. The default behavior is to compute the constant kH for O<sub>2</sub> at 25°C. See options.
- +kd**     Compute the vapor-liquid distribution constant for gases in H<sub>2</sub>O or D<sub>2</sub>O. The default behavior is to compute the constant kD for H<sub>2</sub> at 25°C. See options.

Their syntax is:

- +kh**     [OPTION...] T...
- +kd**     [OPTION...] T...

**OPTIONS**

kh:

- temperature, -T TEMPERATURE...**  
Temperature in °C. Default to 25°C.
- fugacity, -f FUGACITY...**  
Liquid-phase fugacity in MPa. Default to 0.1
- gases, -g GAS...**  
Gases for which to compute kH. Default to O<sub>2</sub>
- 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 H<sub>2</sub>
- D2O,** Set heavywater as the solvent.
- listgases**  
Display available gases for computing kD.

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
```

### **SEE ALSO**

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