

```
[      0%]          main.f90
[ 50%] main.f90 done.
[ 50%] iapws
[100%]
iapws done. [100%] Project compiled successfully.
```

**NAME**

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

**SYNOPSIS**

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

**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 available

**--version, -v**

Show version information and exit.

**EXAMPLE**

Minimal example

```
    iapws
```

**SEE ALSO**

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