
pyiapws Documentation

Release 0.1.0

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Apr 25, 2023

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INTRODUCTION

1.1 Description

Python wrapper around the [Fortran iapws library](#). Follow the [installation instructions](#). for compiling and installing the library.

For now, the wrapper must be compiled on Linux, windows and MacOS platforms after installing the iapws library using the compiler that was used to compile your python interpreter.

The version of the python wrapper follows the versions (major and minor) of the iapws library. The patches will be independent.

A pdf version of the documentation can be found [here](#) pycodata. The source code can be viewed on [GitHub](#).

1.2 How to install

```
pip install pyiapws
```

1.3 Dependencies

```
numpy>=1.20
```

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RELEASE NOTES

2.1 pyiapws 0.1.0 Release Note

2.1.1 Changes

- C extension for kH and kD.

2.1.2 Download

PyPI

2.1.3 Contributors

Milan Skocic

2.1.4 Commits

Full Changelog: <https://github.com/MilanSkocic/pyiapws/compare/...0.1.0>

AUTOGENERATED DOCUMENTATION

3.1 Documentation

3.1.1 pyiapws

IAPWS computations.

`pyiapws.iapws.get_kd(temperature: int | float | ndarray[Any, dtype[ScalarType]], gas: str, solvent: str) → float | ndarray[Any, dtype[ScalarType]]`

Compute the vapor-liquid distribution constant for the gas and solvent at temperature.

Parameters

temperature: int, float or array-like.

Temperature in °C.

gas: str

Desired gas.

solvent: str

Desired solvent: H2O or D2O.

Returns

kd: float or array-like

Henry constant in GPa-1.

`pyiapws.iapws.get_kh(temperature: int | float | ndarray[Any, dtype[ScalarType]], gas: str, solvent: str) → float | ndarray[Any, dtype[ScalarType]]`

Compute the Henry constant for the gas and solvent at temperature.

Parameters

temperature: int, float or array-like.

Temperature in °C.

gas: str

Desired gas.

solvent: str

Desired solvent: H2O or D2O.

Returns

kh: float or array-like

Henry constant in GPa-1.

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M

module

`pyiapws.iapws`, [17](#)

P

`pyiapws.iapws`

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