NAME

ecx - library for electrochemistry

SYNOPSIS

```
ecx (Fortran): use ecx
ecx (C): include "ecx.h"
ecx (python): import pyecx
```

DESCRIPTION

ecx a Fortran library for providing a collection of routines for electrochemistry. A C API allows usage from C, or can be used as a basis for other wrappers. A Python wrapper allows easy usage from Python.

It covers:

o kinetics
Nernst, Butler-Volmer

o electrochemical
Impedance, Admittance, Circuit Elements, Equivalent Circuits

o photoelectrochemistry
Photocurrent, Band-gap, space charge.

The C API is defined by adding a prefix to the functions from the Fortran API due to the lack of module/namespace feature in the C language. The functions are therefore following this template: (c_prefix)fortran_func.

- (ecx_)get_version
- (ecx_core_)kTe
- (ecx_eis_)z
- mm
- (ecx_kinetics_)nernst
- (ecx_kinetics_)sbv
- (ecx_kinetics_)bv
- (ecx_eis_)z

NOTES

To use ecx within your fpm <https://github.com/fortran-lang/fpm> project, add the following lines to your file:

```
[dependencies]
ecx = { git="https://github.com/MilanSkocic/ecx.git" }
```

EXAMPLE

Minimal example in Fortran:

```
use ecx
```

Minimal example in C:

```
include "ecx.h"
```

Minimal example in Python:

```
import pyecx
```

SEE ALSO

complex(7), **gsl**(3), **catanh**(3), **gnuplot**(1), **ecx_get_version**(3)