# Package 'RCflux'

August 14, 2017

**Title** Calculate Closed-Chamber Gas Fluxes

**Version** 0.4

**Description** Calculate closed-chamber gas fluxes.

**Depends** R (>= 3.2.3),
plyr,
dplyr,
stringr,
yaml,
tools,
nlme,
ggplot2,
HMR,
readxl

**License** What license is it under?

**LazyData** true

**RoxygenNote** 6.0.1

## R topics documented:



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`RCflux-package` *RCflux calculates fluxes from closed chamber data*

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### Description

Gas concentration data may come from a GC or other gas analysers Data formats for several sources can be read in: [list here] Output is written to CSV and PNG files. Calculates gas fluxes from closed chamber data.

### Details

The only function you're likely to need from **RCflux** is `calcFlux`. Refer to the vignettes for details of how to use it - use `vignette()`.

### Author(s)

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## calcFlux *This function calculates gas fluxes from GC sample data*

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### Description

This function converts Agilent GC output.

### Usage

```
calcFlux(filelist)
```

### Arguments

| | |
|---|---|
| `filelist` | A file listing the Agilent GC output files to be processed. |

### See Also

`convert_GC_output` for the higher-level function which calls this.

### Examples

```
calcFlux("./filelist.txt")
```

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## convert_GC_output *Converts Agilent GC output to a standard format*

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### Description

This function converts Agilent GC output.

### Usage

```
convert_GC_output(filelistIn)
```

### Arguments

| | |
|---|---|
| `filelistIn` | A file listing the Agilent GC output files to be processed. |

### See Also

`calcFlux` for the higher-level function which calls this.

### Examples

```
convert_GC_output("f:/0Peter/misc/stats/GCflux/filelist_aGCxls.txt")
```

`excelToCsv` *This function calculates excelToCsv*

## Description

This function converts excelToCsv.

## Usage

```
excelToCsv(file_path, keep_sheets = NULL, target_dir = NULL, ...)
```

## Arguments

| | |
|---|---|
| `file_path` | A file listing the Agilent GC output files to be processed. |
| `keep_sheets` | Keep the sheets or not |
| `target_dir` | Directory to save csv file in |
| `...` | Further arguments |

## See Also

`convert_GC_output` for the higher-level function which calls this.

`read_GC_input` *Reads a GC input file*

## Description

This function reads a GC input file.

## Usage

```
read_GC_input(fname)
```

## Arguments

| | |
|---|---|
| `fname` | A GC input file. |

## See Also

`convert_GC_output` for the higher-level function which calls this.

## Examples

```
read_GC_input(fname)
```

## read_GC_output *This function reads Agilent GC output.*

### Description

Reads Agilent GC output

### Usage

```
read_GC_output(fname)
```

### Arguments

| | |
|---|---|
| fname | A GC output file from the Agilent GC. |

### See Also

convert_GC_output for the higher-level function which calls this.

## standardiseNames *Standardises names in a data frame*

### Description

This function standardises names in a data frame.

### Usage

```
standardiseNames(df)
```

### Arguments

| | |
|---|---|
| df | A data frame. |

### See Also

convert_GC_output for the higher-level function which calls this.

### Examples

```
tdf <- data.frame(Plot = c(1, 2), Compound.Name = c("CO2", "CH4"))
tdf
names(tdf)
tdf <- standardiseNames(tdf)
tdf
names(tdf)
```

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