

Model call record

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Calculates emission factors

Check package version.

```
packageVersion('ALFAM2')
```

```
## [1] '0.3.2'
```

Parameter values.

```
pars
```

| | | | | |
|----|-------------------|-------------------|----------------|----------------|
| ## | int.f0 | app.mthd.os.f0 | app.rate.ni.f0 | man.dm.f0 |
| ## | -0.60568338 | -1.74351499 | -0.01114900 | 0.39967070 |
| ## | man.source.pig.f0 | app.mthd.cs.f0 | int.r1 | app.mthd.bc.r1 |
| ## | -0.59202858 | -7.63373787 | -0.93921516 | 0.79352480 |
| ## | man.dm.r1 | air.temp.r1 | wind.2m.r1 | app.mthd.ts.r1 |
| ## | -0.13988189 | 0.07354268 | 0.15026720 | -0.45907135 |
| ## | ts.cereal.hght.r1 | man.ph.r1 | int.r2 | rain.rate.r2 |
| ## | -0.24471238 | 0.66500000 | -1.79918546 | 0.39402156 |
| ## | int.r3 | app.mthd.bc.r3 | app.mthd.cs.r3 | man.ph.r3 |
| ## | -3.22841225 | 0.56153956 | -0.66647417 | 0.23800000 |
| ## | incorp.shallow.f4 | incorp.shallow.r3 | incorp.deep.f4 | incorp.deep.r3 |
| ## | -0.96496655 | -0.58052689 | -3.69494954 | -1.26569562 |

Run model

With set 2 parameters

```
preds <- ALFAM2mod(dat, pars = pars, app.name = 'tan.app', time.name = 'ct', time.incorp = 't.incorp', group = 'id', warn = TRUE)
```

```
## Warning in ALFAM2mod(dat, pars = pars, app.name = "tan.app", time.name = "ct", : Running with 22 parameters. Dropped 2 with no match.
```

```
## These secondary parameters have been dropped: app.mthd.ts.r1
## ts.cereal.hght.r1
```

Check reference condition.

```
ALFAM2mod(ref, pars = pars, app.name = 'tan.app', time.name = 'ct', time.incorp = 't.incorp', warn = TRUE)
```

```
## Warning in ALFAM2mod(ref, pars = pars, app.name = "tan.app", time.name = "ct", :
## No matching column for incorporation parameter(s): incorp.shallow, incorp.deep.
## Skipping incorporation.
```

```
## Warning in ALFAM2mod(ref, pars = pars, app.name = "tan.app", time.name = "ct", : Running with 20 parameters. Dropped 4 with no match.
## These secondary parameters have been dropped: incorp.shallow.f4
## incorp.shallow.r3
## incorp.deep.f4
## incorp.deep.r3
```

```
##      ct dt      f0      r1      r2      r3 f4      f      s
## 1 168 168 0.2589096 0.115023 0.01587869 0.0005910004 1 7.283926e-09 69.96107
##           j      e      e.int      er
## 1 0.1788032 30.03893 30.03893 0.3003893
```

With default values

```
preds.def <- ALFAM2mod(dat, app.name = 'tan.app', time.name = 'ct', time.incorp = 't.incorp', group = 'id', warn = TRUE)
```

```
## Warning in ALFAM2mod(dat, app.name = "tan.app", time.name = "ct", time.incorp = "t.incorp", : Running with 19 parameters. Dropped 1 with no match.
## These secondary parameters have been dropped: rain.cum.r3
```

Add results to main df

```
dat$emis <- signif(preds$e, 2)
dat$EF <- signif(preds$er, 2)

dat$emis.def <- signif(preds.def$e, 2)
dat$EF.def <- signif(preds.def$er, 2)
```