

# Model call record

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Calculates emission factors

Check package version.

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

```
## [1] '1.5.5'
```

Parameter values.

```
ALFAM2pars02
```

##	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

```
refpreds <- alfam2(refdat, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct', group = 'id', warn = TRUE, prep = TRUE)
```

```

## User-supplied parameters are being used.

## Warning in alfam2(refdat, pars = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 14 parameters. Dropped 10 with no
## These secondary parameters have been dropped:
##   app.mthd.cs.f0
##   app.mthd.bc.r1
##   app.mthd.ts.r1
##   ts.cereal.hght.r1
##   app.mthd.bc.r3
##   app.mthd.cs.r3
##   incorp.shallow.f4
##   incorp.shallow.r3
##   incorp.deep.f4
##   incorp.deep.r3
##
## These secondary parameters are being used:
##   int.f0
##   app.mthd.os.f0
##   app.rate.ni.f0
##   man.dm.f0
##   man.source.pig.f0
##   int.r1
##   man.dm.r1
##   air.temp.r1
##   wind.2m.r1
##   man.ph.r1
##   int.r2
##   rain.rate.r2
##   int.r3
##   man.ph.r3

lfpreds <- alfam2(lfdat, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct', group = 'id', warn = TRUE, prep = TRUE)

## User-supplied parameters are being used.

## Warning in alfam2(lfdat, pars = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 14 parameters. Dropped 10 with no
## These secondary parameters have been dropped:
##   app.mthd.cs.f0
##   app.mthd.bc.r1
##   app.mthd.ts.r1
##   ts.cereal.hght.r1

```

```

## app.mthd.bc.r3
## app.mthd.cs.r3
## incorp.shallow.f4
## incorp.shallow.r3
## incorp.deep.f4
## incorp.deep.r3
##
## These secondary parameters are being used:
## int.f0
## app.mthd.os.f0
## app.rate.ni.f0
## man.dm.f0
## man.source.pig.f0
## int.r1
## man.dm.r1
## air.temp.r1
## wind.2m.r1
## man.ph.r1
## int.r2
## rain.rate.r2
## int.r3
## man.ph.r3

sfpreds <- ALFAM2mod(sfdat, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct',
                    time.incorp = 't.incorp', group = 'id', warn = TRUE, prep = TRUE)

## User-supplied parameters are being used.
## Incorporation applied (for group sf 10).
## Incorporation applied (for group sf 105).
## Incorporation applied (for group sf 106).
## Incorporation applied (for group sf 107).
## Incorporation applied (for group sf 108).
## Incorporation applied (for group sf 109).
## Incorporation applied (for group sf 11).
## Incorporation applied (for group sf 110).

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## Incorporation applied (for group sf 111).  
## Incorporation applied (for group sf 112).  
## Incorporation applied (for group sf 12).  
## Incorporation applied (for group sf 121).  
## Incorporation applied (for group sf 122).  
## Incorporation applied (for group sf 123).  
## Incorporation applied (for group sf 124).  
## Incorporation applied (for group sf 125).  
## Incorporation applied (for group sf 126).  
## Incorporation applied (for group sf 127).  
## Incorporation applied (for group sf 128).  
## Incorporation applied (for group sf 13).  
## Incorporation applied (for group sf 137).  
## Incorporation applied (for group sf 138).  
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## Incorporation applied (for group sf 14).  
## Incorporation applied (for group sf 140).  
## Incorporation applied (for group sf 141).  
## Incorporation applied (for group sf 142).  
## Incorporation applied (for group sf 143).  
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## Incorporation applied (for group sf 190).  
## Incorporation applied (for group sf 191).  
## Incorporation applied (for group sf 192).  
## Incorporation applied (for group sf 201).  
## Incorporation applied (for group sf 202).  
## Incorporation applied (for group sf 203).  
## Incorporation applied (for group sf 204).  
## Incorporation applied (for group sf 205).

## Incorporation applied (for group sf 206).  
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## Incorporation applied (for group sf 220).  
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## Incorporation applied (for group sf 32).  
## Incorporation applied (for group sf 41).  
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## Incorporation applied (for group sf 45).  
## Incorporation applied (for group sf 46).  
## Incorporation applied (for group sf 47).  
## Incorporation applied (for group sf 48).  
## Incorporation applied (for group sf 57).  
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## Incorporation applied (for group sf 60).  
## Incorporation applied (for group sf 61).  
## Incorporation applied (for group sf 62).  
## Incorporation applied (for group sf 63).  
## Incorporation applied (for group sf 64).  
## Incorporation applied (for group sf 73).  
## Incorporation applied (for group sf 74).  
## Incorporation applied (for group sf 75).  
## Incorporation applied (for group sf 76).  
## Incorporation applied (for group sf 77).  
## Incorporation applied (for group sf 78).  
## Incorporation applied (for group sf 79).  
## Incorporation applied (for group sf 80).  
## Incorporation applied (for group sf 89).

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## Incorporation applied (for group sf 9).
## Incorporation applied (for group sf 90).
## Incorporation applied (for group sf 91).
## Incorporation applied (for group sf 92).
## Incorporation applied (for group sf 93).
## Incorporation applied (for group sf 94).
## Incorporation applied (for group sf 95).
## Incorporation applied (for group sf 96).
## Warning in ALFAM2mod(sfdat, pars = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 16 parameters. Dropped 8 with n
## These secondary parameters have been dropped:
##   app.mthd.cs.f0
##   app.mthd.bc.r1
##   app.mthd.ts.r1
##   ts.cereal.hght.r1
##   app.mthd.bc.r3
##   app.mthd.cs.r3
##   incorp.shallow.f4
##   incorp.shallow.r3
##
## These secondary parameters are being used:
##   int.f0
##   app.mthd.os.f0
##   app.rate.ni.f0
##   man.dm.f0
##   man.source.pig.f0
##   int.r1
##   man.dm.r1
##   air.temp.r1
##   wind.2m.r1
##   man.ph.r1
##   int.r2
##   rain.rate.r2
##   int.r3
##   man.ph.r3
##   incorp.deep.f4

```



```
##   incorp.deep.r3
```

Add results to main df

```
refdat$EF.field.raw <- signif(refpreds$er, 4)  
lfdat$EF.field <- signif(lfpreds$er, 4)  
sfdat$EF.field <- signif(sfpreds$er, 4)
```