Model call record

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Calculates emission factors

Check package version.

packageVersion('ALFAM2')

[1] '1.5.5'

Parameter values.

ALFAM2pars02

##		app.timing.dk	app.timing	air.temp	wind.2m	rain.rate	app.mthd	app.rate.ni	man.source
##	1	Marts	March	4.431012	4.058916	0.05996290	Trailing hose	30	Afgasset biomasse
##	2	April	April	8.236460	3.844456	0.05521194	Trailing hose	30	Afgasset biomasse
##	3	Maj	May	12.449250	3.483915	0.07029935	Trailing hose	30	Afgasset biomasse
##	4	Sommer	Summer	16.876226	3.156240	0.10592531	Trailing hose	30	Afgasset biomasse
##	5	Efterår	Autumn	14.497748	3.322770	0.12826017	Trailing hose	30	Afgasset biomasse
##	6	Marts	March	4.431012	4.058916	0.05996290	Open slot injection	0	Afgasset biomasse
##	7	April	April	8.236460	3.844456	0.05521194	Open slot injection	0	Afgasset biomasse
##	8	Maj	May	12.449250	3.483915	0.07029935	Open slot injection	0	Afgasset biomasse

##	9	Sommer	Summer 16	8.876226	3.156240	0.10592531	Open sl	ot injection	O Afgasset bi	iomasse
##	10	Efterår	Autumn 14	1.497748	3.322770	0.12826017	Open sl	ot injection	O Afgasset bi	iomasse
##	11	Marts	March 4	1.431012	4.058916	0.05996290	Closed sl	ot injection	O Afgasset bi	iomasse
##	12	April	April 8	3.236460	3.844456	0.05521194	Closed sl	ot injection	O Afgasset bi	iomasse
##	13	Maj	May 12	2.449250	3.483915	0.07029935	Closed sl	ot injection	O Afgasset bi	iomasse
##	14	Sommer	Summer 16	3.876226	3.156240	0.10592531	Closed sl	ot injection	O Afgasset bi	iomasse
##	15	Efterår	Autumn 14	1.497748	3.322770	0.12826017	Closed sl	ot injection	O Afgasset bi	iomasse
##	16	Marts	March 4	1.431012	4.058916	0.05996290	T	railing hose	30 Afgasset bi	iomasse
##	17	April	April 8	3.236460	3.844456	0.05521194	T	railing hose	30 Afgasset bi	iomasse
##	18	Maj	May 12	2.449250	3.483915	0.07029935	T	railing hose	30 Afgasset bi	iomasse
##	19	Sommer	Summer 16	3.876226	3.156240	0.10592531	T	railing hose	30 Afgasset bi	iomasse
##	20	Efterår	Autumn 14	1.497748	3.322770	0.12826017	T	railing hose	30 Afgasset bi	iomasse
##	21	Marts	March 4	1.431012	4.058916	0.05996290	T	railing hose	30 Afgasset bi	iomasse
##	22	April	April 8	3.236460	3.844456	0.05521194	T	railing hose	30 Afgasset bi	iomasse
##	23	Maj	May 12	2.449250	3.483915	0.07029935	T	railing hose	30 Afgasset bi	iomasse
##	24	Sommer	Summer 16	8.876226	3.156240	0.10592531	T	railing hose	30 Afgasset bi	iomasse
##	25	Efterår	Autumn 14	1.497748	3.322770	0.12826017	T	railing hose	30 Afgasset bi	iomasse
##	26	Marts	March 4	1.431012	4.058916	0.05996290	T	railing hose	30 Afgasset bi	iomasse
##	27	April	April 8	3.236460	3.844456	0.05521194	T	railing hose	30 Afgasset bi	iomasse
##	28	Maj	May 12	2.449250	3.483915	0.07029935	T	railing hose	30 Afgasset bi	iomasse
##	29	Sommer	Summer 16	3.876226	3.156240	0.10592531	T	railing hose	30 Afgasset bi	iomasse
##	30	Efterår	Autumn 14	1.497748	3.322770	0.12826017	T	railing hose	30 Afgasset bi	iomasse
##	31	Marts	March 4	1.431012	4.058916	0.05996290	T	railing hose	30 Afgasset bi	iomasse
##	32	April	-			0.05521194		railing hose	30 Afgasset bi	
##	33	Maj	May 12	2.449250	3.483915	0.07029935	T	railing hose	30 Afgasset bi	iomasse
##	34	Sommer	Summer 16	8.876226	3.156240	0.10592531		railing hose	30 Afgasset bi	iomasse
##	35	Efterår				0.12826017	T	railing hose	30 Afgasset bi	iomasse
##		Marts	March 4	1.431012	4.058916	0.05996290	Open sl	ot injection	O Afgasset bi	iomasse
##		April	-			0.05521194	Open sl	ot injection	0 Afgasset bi	iomasse
##	38	Maj	•			0.07029935	Open sl	ot injection	0 Afgasset bi	iomasse
##	39	Sommer	Summer 16	3.876226	3.156240	0.10592531	Open sl	ot injection	0 Afgasset bi	iomasse
##	40	Efterår				0.12826017	-	ot injection	0 Afgasset bi	iomasse
##	41	Marts						ot injection	0 Afgasset bi	iomasse
	42	April	-					ot injection	0 Afgasset bi	iomasse
##		Maj						ot injection	O Afgasset bi	
	44	Sommer						ot injection	O Afgasset bi	
##		Efterår						ot injection	O Afgasset bi	
	46	Marts				0.05996290		railing hose	30 Afgasset bi	
##	47	April	April 8	3.236460	3.844456	0.05521194	T	railing hose	30 Afgasset bi	iomasse

##	48	Maj	May	12.449250	3.483915	0.07029935	Trailing hose	30 Afgasset biomasse
##	49	Sommer	Summer	16.876226	3.156240	0.10592531	Trailing hose	30 Afgasset biomasse
##	50	Efterår	Autumn	14.497748	3.322770	0.12826017	Trailing hose	30 Afgasset biomasse
##	51	Marts	March	4.431012	4.058916	0.05996290	Trailing hose	30 Afgasset biomasse
##	52	April	April	8.236460	3.844456	0.05521194	Trailing hose	30 Afgasset biomasse
##	53	Maj	May	12.449250	3.483915	0.07029935	Trailing hose	30 Afgasset biomasse
##	54	Sommer	Summer	16.876226	3.156240	0.10592531	Trailing hose	30 Afgasset biomasse
##	55	Efterår	Autumn	14.497748	3.322770	0.12826017	Trailing hose	30 Afgasset biomasse
##	56	Marts	March	4.431012	4.058916	0.05996290	Trailing hose	30 Afgasset biomasse
##	57	April	April	8.236460	3.844456	0.05521194	Trailing hose	30 Afgasset biomasse
##	58	Maj	May	12.449250	3.483915	0.07029935	Trailing hose	30 Afgasset biomasse
##	59	Sommer	Summer	16.876226	3.156240	0.10592531	Trailing hose	30 Afgasset biomasse
##	60	Efterår	Autumn	14.497748	3.322770	0.12826017	Trailing hose	30 Afgasset biomasse
##	61	Marts	March	4.431012	4.058916	0.05996290	Trailing hose	30 Afgasset biomasse
##	62	April	April	8.236460	3.844456	0.05521194	Trailing hose	30 Afgasset biomasse
##	63	Maj	May	12.449250	3.483915	0.07029935	Trailing hose	30 Afgasset biomasse
##	64	Sommer	Summer	16.876226	3.156240	0.10592531	Trailing hose	30 Afgasset biomasse
##	65	Efterår	Autumn	14.497748	3.322770	0.12826017	Trailing hose	30 Afgasset biomasse
##	66	Marts	March	4.431012	4.058916	0.05996290	Open slot injection	O Afgasset biomasse
##	67	April	April	8.236460	3.844456	0.05521194	Open slot injection	O Afgasset biomasse
##	68	Maj	May	12.449250	3.483915	0.07029935	Open slot injection	O Afgasset biomasse
##	69	Sommer	Summer	16.876226	3.156240	0.10592531	Open slot injection	O Afgasset biomasse
##	70	Efterår	Autumn	14.497748	3.322770	0.12826017	Open slot injection	O Afgasset biomasse
##	71	Marts	March	4.431012	4.058916	0.05996290	Closed slot injection	O Afgasset biomasse
##	72	April	April	8.236460	3.844456	0.05521194	Closed slot injection	O Afgasset biomasse
##	73	Maj	May	12.449250	3.483915	0.07029935	Closed slot injection	O Afgasset biomasse
##	74	Sommer	Summer	16.876226	3.156240	0.10592531	Closed slot injection	O Afgasset biomasse
##	75	Efterår	Autumn	14.497748	3.322770	0.12826017	Closed slot injection	O Afgasset biomasse
##	76	Marts	March	4.431012	4.058916	0.05996290	Trailing hose	30 Afgasset biomasse
##	77	April	April	8.236460	3.844456	0.05521194	Trailing hose	30 Afgasset biomasse
##	78	Maj	May	12.449250	3.483915	0.07029935	Trailing hose	30 Afgasset biomasse
##	79	Sommer	Summer	16.876226	3.156240	0.10592531	Trailing hose	30 Afgasset biomasse
##	80	Efterår	Autumn	14.497748	3.322770	0.12826017	Trailing hose	30 Afgasset biomasse
##	81	Marts	March	4.431012	4.058916	0.05996290	Trailing hose	30 Afgasset biomasse
##	82	April	April	8.236460	3.844456	0.05521194	Trailing hose	30 Afgasset biomasse
##	83	Maj	May	12.449250	3.483915	0.07029935	Trailing hose	30 Afgasset biomasse
##	84	Sommer	Summer	16.876226	3.156240	0.10592531	Trailing hose	30 Afgasset biomasse
##	85	Efterår	Autumn	14.497748	3.322770	0.12826017	Trailing hose	30 Afgasset biomasse
##	86	Marts	March	4.431012	4.058916	0.05996290	Trailing hose	30 Afgasset biomasse

##	87		Apr	il	Apri	il 8	3.236460	3.844456	0.05521194	Trailing	hose	30 Afgasse	et biomasse
##	88		Ma	aj	Ma	ay 12	2.449250	3.483915	0.07029935	Trailing	hose	30 Afgasse	t biomasse
##	89		Somme	er	Summe	er 16	6.876226	3.156240	0.10592531	Trailing	hose	30 Afgasse	t biomasse
##	90		Eftera	år	Autur	nn 14	4.497748	3.322770	0.12826017	Trailing	hose	30 Afgasse	t biomasse
##			acid man	n.dm	man.ph	ct	tan.app	id					
##	1	0	kg/t	5.1	7.9000	168	100	1					
##	2	0	kg/t	5.1	7.9000	168	100	2					
##	3	0	kg/t	5.1	7.9000	168	100	3					
##	4	0	kg/t	5.1	7.9000	168	100	4					
##	5	0	kg/t	5.1	7.9000	168	100	5					
##	6	0	kg/t	5.1	7.9000	168	100	6					
##	7	0	kg/t	5.1	7.9000	168	100	7					
##	8	0	kg/t	5.1	7.9000	168	100						
##			kg/t		7.9000		100						
##	10		kg/t		7.9000		100						
##		0	kg/t	5.1	7.9000	168	100						
	12	0	kg/t		7.9000		100						
	13		kg/t		7.9000		100						
	14		kg/t		7.9000		100						
	15		kg/t		7.9000		100						
##			kg/t		6.5200		100						
##			kg/t		6.5200		100						
##			kg/t		6.5200		100						
##			kg/t		6.5200		100						
			kg/t		6.5200		100						
			kg/t		7.0813		100						
			kg/t		7.0813		100						
			kg/t		7.0813		100						
			kg/t		7.0813		100						
			kg/t		7.0813		100						
			kg/t		6.7900		100						
			kg/t		6.7900		100						
			kg/t		6.7900		100						
			kg/t		6.7900		100						
			kg/t		6.7900		100						
	31		kg/t		7.9000		100						
##			kg/t		7.9000		100						
##			kg/t		7.9000		100						
##	34	U	kg/t	5.9	7.9000	TOQ	100	34					

##	35	0	kg/t	5.9	7.9000	168	10	00	35
##	36	0	kg/t	5.9	7.9000	168	10	00	36
##	37	0	kg/t	5.9	7.9000	168	10	00	37
##	38	0	kg/t	5.9			10	00	38
##	39	0	kg/t	5.9	7.9000	168	10	00	39
##	40	0	kg/t	5.9	7.9000	168	10	00	40
##	41	0	kg/t	5.9	7.9000	168	10	00	41
##	42	0	kg/t	5.9	7.9000	168	10	00	42
##		0	kg/t		7.9000		10	00	43
##	44	0	kg/t	5.9	7.9000	168	10	00	44
##	45	0	kg/t	5.9	7.9000	168	10	00	45
##	46	11	kg/t		6.5200		10	00	46
##	47	11	kg/t	5.9	6.5200	168	10	00	47
##	48	11	kg/t		6.5200		10	00	48
##	49	11	kg/t	5.9	6.5200	168	10	00	49
##	50	11	kg/t		6.5200		10	00	50
##	51	3.4	kg/t	5.9			10	00	51
##	52	3.4	kg/t	5.9				00	52
##	53	3.4	kg/t		7.0813		10	00	53
##	54		kg/t		7.0813		10	00	54
##	55		_		7.0813		10	00	55
##	56	7.5	kg/t		6.7900		10	00	56
##	57	7.5	kg/t		6.7900		10	00	57
##	58	7.5	kg/t	5.9			10	00	58
##	59	7.5	kg/t	5.9			10	00	59
##	60	7.5	kg/t	5.9				00	60
##	61	0	kg/t	6.9				00	61
##	62	0	kg/t		7.9000			00	62
##	63	0	kg/t		7.9000			00	63
##	64	0	kg/t		7.9000		10	00	64
##	65	0	kg/t		7.9000			00	65
##	66	0	kg/t		7.9000			00	66
##	67	0	kg/t		7.9000			00	67
##	68	0	kg/t		7.9000			00	68
##	69	0	kg/t		7.9000			00	69
##	70	0	kg/t	6.9				00	70
##	71	0	kg/t	6.9				00	71
##	72	0	kg/t	6.9		168	10	00	72
##	73	0	kg/t	6.9	7.9000	168	10	00	73

```
## 74 0 kg/t
                  6.9 7.9000 168
                                     100 74
      0 kg/t
                  6.9 7.9000 168
                                     100 75
## 75
## 76 11 kg/t
                  6.9 6.5200 168
                                     100 76
## 77 11 kg/t
                  6.9 6.5200 168
                                     100 77
## 78 11 kg/t
                  6.9 6.5200 168
                                     100 78
## 79 11 kg/t
                  6.9 6.5200 168
                                     100 79
## 80 11 kg/t
                  6.9 6.5200 168
                                     100 80
## 81 3.4 kg/t
                  6.9 7.0813 168
                                     100 81
## 82 3.4 kg/t
                  6.9 7.0813 168
                                     100 82
## 83 3.4 kg/t
                 6.9 7.0813 168
                                     100 83
## 84 3.4 kg/t
                  6.9 7.0813 168
                                     100 84
                  6.9 7.0813 168
## 85 3.4 kg/t
                                     100 85
## 86 7.5 kg/t
                  6.9 6.7900 168
                                     100 86
## 87 7.5 kg/t
                 6.9 6.7900 168
                                     100 87
## 88 7.5 kg/t
                 6.9 6.7900 168
                                     100 88
## 89 7.5 kg/t
                 6.9 6.7900 168
                                     100 89
## 90 7.5 kg/t
                  6.9 6.7900 168
                                    100 90
Run model
With set 2 parameters
preds <- ALFAM2mod(dat, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct', group = 'id', warn = TRUE, prep = TRUE, parallel = TF
## User-supplied parameters are being used.
## Warning in ALFAM2mod(dat, pars = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 15 parameters. Dropped 9 with no
## These secondary parameters have been dropped:
    man.source.pig.f0
    app.mthd.bc.r1
    app.mthd.ts.r1
    ts.cereal.hght.r1
    app.mthd.bc.r3
    incorp.shallow.f4
    incorp.shallow.r3
```

incorp.deep.f4

incorp.deep.r3

app.mthd.os.f0

int.f0

These secondary parameters are being used:

##

##

```
app.rate.ni.f0
    man.dm.f0
##
     app.mthd.cs.f0
    int.r1
    man.dm.r1
    air.temp.r1
    wind.2m.r1
    man.ph.r1
    int.r2
    rain.rate.r2
    int.r3
    app.mthd.cs.r3
    man.ph.r3
Check reference condition.
ALFAM2mod(ref, pars = ALFAM2pars01, app.name = 'tan.app', time.name = 'ct', time.incorp = 't.incorp', warn = TRUE)
## User-supplied parameters are being used.
## Warning in ALFAM2mod(ref, pars = ALFAM2pars01, app.name = "tan.app", time.name = "ct", : No matching column for
## incorporation parameter(s): incorp.deep, incorp.shallow. Skipping incorporation.
## Warning in ALFAM2mod(ref, pars = ALFAM2pars01, app.name = "tan.app", time.name = "ct", : Running with 15 parameters. Dropped 5 with no
## These secondary parameters have been dropped:
    app.rate.f0
    incorp.deep.f4
    incorp.shallow.f4
    incorp.deep.r3
    rain.cum.r3
##
##
## These secondary parameters are being used:
    int.f0
    int.r1
    int.r2
    int.r3
    app.mthd.os.f0
    man.dm.f0
##
    app.mthd.bc.r1
```

man.dm.r1
air.temp.r1

```
wind.2m.r1
##
    man.ph.r1
     air.temp.r3
##
    app.mthd.os.r3
##
    man.ph.r3
    rain.rate.r2
      ct dt
                    f0
                               r1
                                         r2
                                                     r3 f4
                                                                    f
                                                                                                      e.int
## 1 168 168 0.3237724 0.06628499 0.1110777 0.001255181 1 3.7119e-12 71.30525 0.1708021 28.69475 28.69475 0.2869475
ALFAM2mod(ref, pars = ALFAM2pars02, app.name = 'tan.app', time.name = 'ct', time.incorp = 't.incorp', warn = TRUE)
## User-supplied parameters are being used.
## Warning in ALFAM2mod(ref, pars = ALFAM2pars02, 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 = ALFAM2pars02, app.name = "tan.app", time.name = "ct", : Running with 20 parameters. Dropped 4 with no
## These secondary parameters have been dropped:
     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
    app.mthd.cs.f0
    int.r1
    app.mthd.bc.r1
    man.dm.r1
    air.temp.r1
    wind.2m.r1
    app.mthd.ts.r1
    ts.cereal.hght.r1
##
    man.ph.r1
     int.r2
    rain.rate.r2
```

```
## int.r3
## app.mthd.bc.r3
## app.mthd.cs.r3
## man.ph.r3

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

Add results to main df

dat$EF <- signif(preds$er, 2)
dat$EFp <- 100 * signif(preds$er, 2)</pre>
```