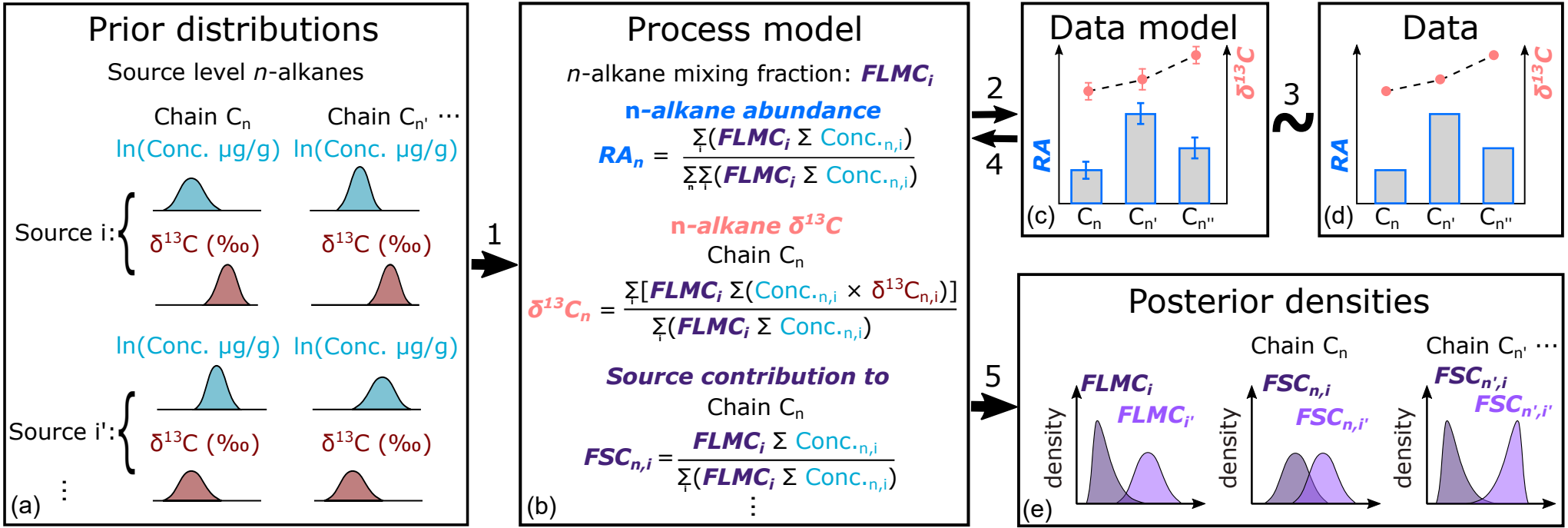
Prior distributions
Source level n-alkanes
Chain Cn
Chain Cn' ⋯
ln(Conc. µg/g)
ln(Conc. µg/g)
Source i:
δ13C (‰)
δ13C (‰)
ln(Conc. µg/g)
ln(Conc. µg/g)
Source i':
δ13C (‰)
δ13C (‰)
(a)
1
Process model
n-alkane mixing fraction: FLMCi
n-alkane abundance
RAn = ∑i(FLMCi Σ Conc.n,i) / ∑n∑i(FLMCi Σ Conc.n,i)
n-alkane δ13C
Chain Cn
δ13Cn = ∑i[FLMCi Σ(Conc.n,i × δ13Cn,i)] / ∑i(FLMCi Σ Conc.n,i)
Source contribution to
Chain Cn
FSCn,i = FLMCi Σ Conc.n,i / ∑i(FLMCi Σ Conc.n,i)
(b)
2
4
Data model
RA
δ13C
(c)
Cn
Cn'
Cn''
3
Data
RA
δ13C
(d)
Cn
Cn'
Cn''
5
Posterior densities
Chain Cn
Chain Cn' ⋯
FLMCi
FLMCi'
FSCn,i
FSCn,i'
FSCn',i
FSCn',i'
density
density
density
(e)