

KEY TO BIOMARKER PARAMETERS OF SOURCE, MIGRATION AND BIODEGRADATION

Parameter	* Derivation	Specificity
1	$C_{27} : C_{28} : C_{29}$ 5 α (H)14 α (H)17 α (H) 20R steranes	Source
2	C_{29} 5 α (H)14 α (H)17 α (H) 20R sterane / C_{27} 5 α (H)14 α (H)17 α (H) 20R sterane	Source
3	C_{29} 13 β (H)17 α (H) 20R diasterane / C_{27} 13 β (H)17 α (H) 20R diasterane	Source
4	C_{29} 5 α (H)14 α (H)17 α (H) 20S sterane / C_{29} 5 α (H)14 α (H)17 α (H) 20R sterane	Maturity, Biodegradation
5	C_{27} 13 β (H)17 α (H) 20S diasterane / C_{27} 13 β (H)17 α (H) 20R diasterane	Maturity
6	C_{29} 5 α (H)14 β (H)17 β (H) 20R sterane / C_{29} 5 α (H)14 α (H)17 α (H) 20R sterane	Maturity, Migration
7	C_{29} 13 β (H)17 α (H) 20R+20S diasteranes / C_{29} 5 α (H) steranes	Migration, Source
8	C_{30} pentacyclic terpane/ C_{30} 17 α (H)21 β (H) hopane	Source
9	C_{27} 17 α (H)-22,29,30-trisnorhopane / C_{27} 18 α (H)-22,29,30-trisnorhopane (T_m/T_s)	Maturity, Source
10	T_s / C_{30} 17 α (H)21 β (H) hopane	Maturity
11	C_{32} 17 α (H)21 β (H) 22S homohopane / C_{32} 17 α (H)21 β (H) 22R homohopane	Maturity
12	C_{30} 17 β (H)21 α (H) moretane / C_{30} 17 α (H)21 β (H) hopane	Maturity
13	C_{29} 17 α (H)-25-norhopane / C_{29} 17 α (H)-30-norhopane	Biodegradation Maturity

* Ratios calculated from peak areas as follows:

Parameters 1-6 m/z = 217 mass fragmentogram
 Parameter 7 m/z = 217, 259 mass fragmentograms
 Parameters 8-13 m/z = 191 mass fragmentogram