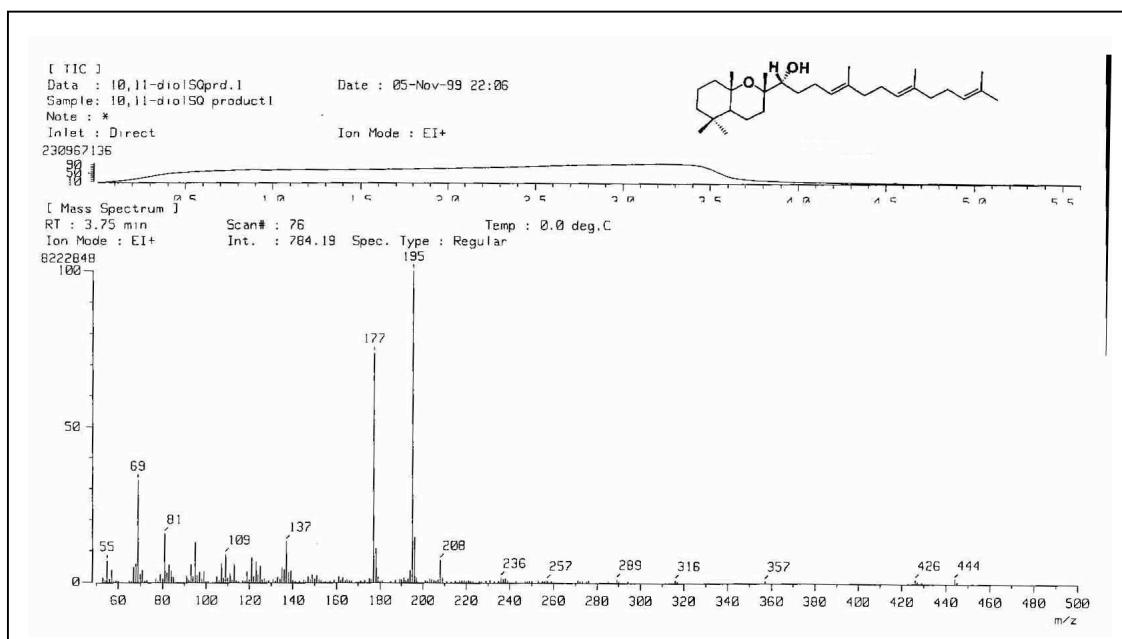


Product 33



Product 33 (oil) from racemic mixture of (10R, 11S)- and (10S, 11R)-SQ diols

$[\alpha]_D^{25} = +12.7$
 (c = 0.525, CHCl₃)

→ Major HMBC
 ⇄ Major NOE

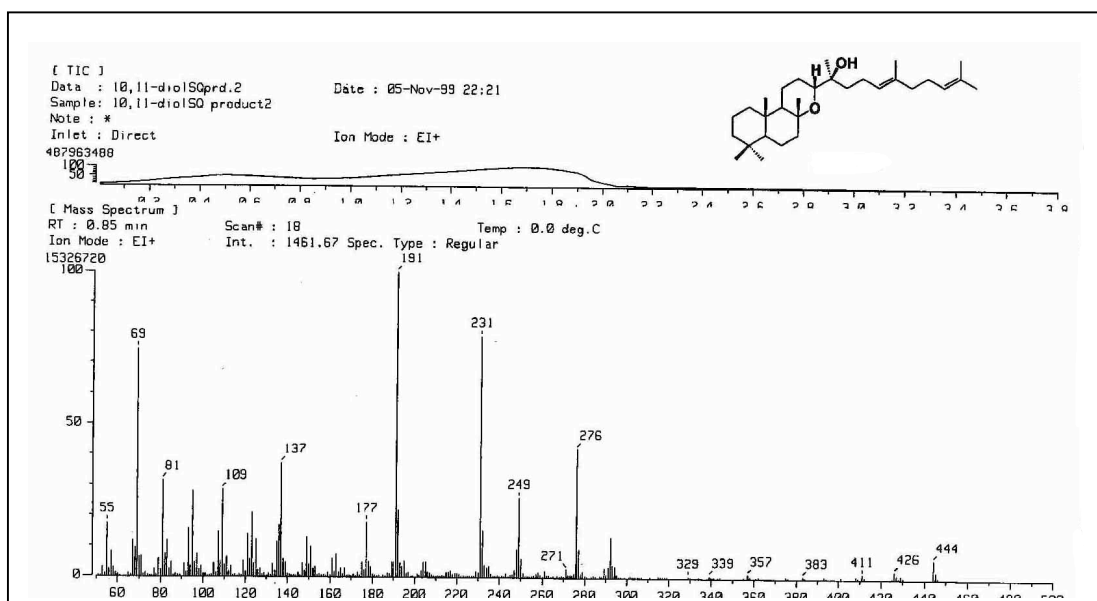
600 MHz

NMR data in C₆D₆, solvent peak : ¹H; 7.28 ppm, ¹³C; 128.0 ppm

NO.	¹ H	¹³ C	NO.	¹ H	¹³ C	NO.	¹ H	¹³ C	NO.	¹ H	¹³ C
1	1.23(m); 1.72(m)	41.84	9	—	75.51	17	5.43(t,6.5Hz)	124.86	25	1.309(3H, s)	23.49
2	1.44(2H, m)	20.22	10	3.63(dd, 9.9, 2.0)	77.33	18	—	134.88	26	1.236(3H, s)	24.02
3	1.13(m); 1.30(m)	41.36	11	1.61(2H, m)	30.63	19	2.23(2H, m)	40.25*	27	1.823(3H, s)	16.10
4	—	33.35	12	2.53(m); 2.73(m)	25.91	20	2.32(2H, m)	27.22**	28	1.729(3H, s)	16.16
5	1.14(dd, 12.1, 1.5)	54.60	13	5.51(t,6.8Hz)	125.17	21	5.38(t,6.9Hz)	124.96	29	1.694(3H, s)	17.75
6	1.40(m); 1.53(bd, 12.3)	16.08	14	—	135.41	22	—	131.06	30	1.812(3H, s)	25.88
7	1.37, 1.99 (dt, 4.8, 13.1Hz)	30.77	15	2.25(2H, m)	40.23*	23	0.902(3H, s)	32.18	OH	3.19(bs)	
8	—	76.47	16	2.33(2H, m)	27.06**	24	0.761(3H, s)	20.93			

*, ** exchangeable

Product 34

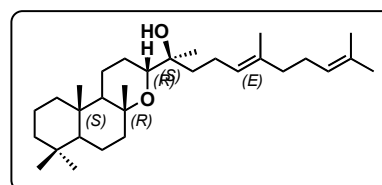
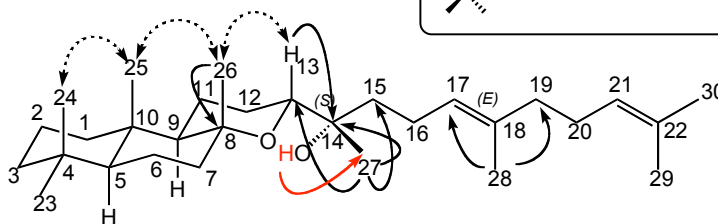


Product 34 (oil) from a mixture of (10R, 11S) and (10S, 11R)-SQ diols

$[\alpha]_D^{25} = +2.20$
 (c 0.25, CHCl_3)

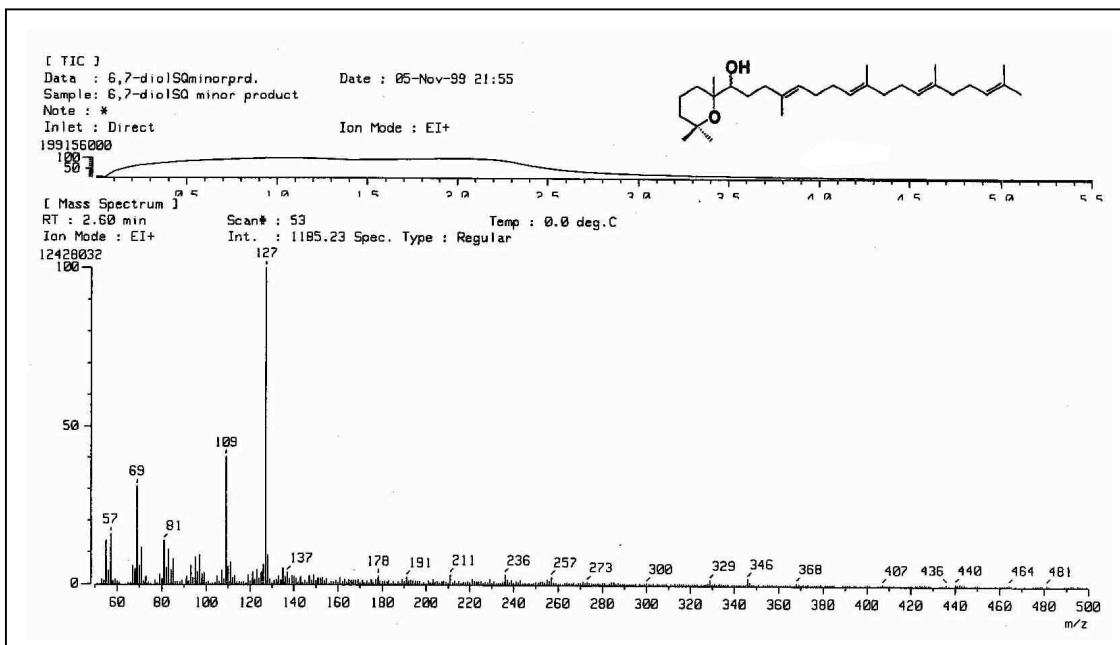
→ HMBC
 ↔ NOE
 400 MHz

NMR data in C_6D_6 , solvent peak : ^1H : 7.28 ppm, ^{13}C : 128.0 ppm



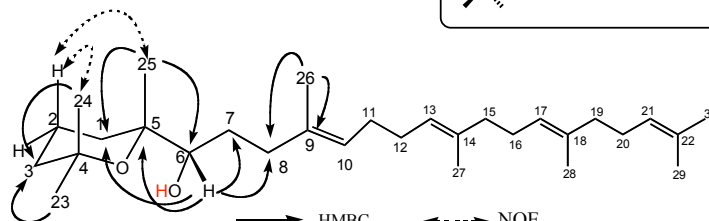
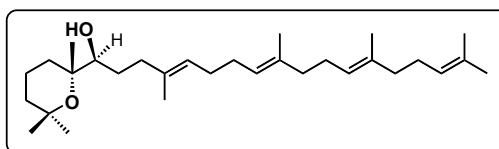
NO.	^1H	^{13}C	NO.	^1H	^{13}C	NO.	^1H	^{13}C	NO.	^1H	^{13}C
1	0.77(m); 1.51(m)	39.10	9	1.14(dt,2.0, 12.4)	57.60	17	5.52 (t,7.0Hz)	125.78	25	0.735 (3H, s)	15.67
2	1.48(m); 1.67(m)	18.91	10	—	36.79	18	—	134.77	26	1.210 (3H, s)	20.78
3	1.23(m); 1.45(m)	42.35	11	1.25(m); 1.60(m)	18.41	19	2.24 (2H,m)	40.24	27	1.380 (3H, s)	23.58
4	—	33.33	12	1.49(m); 1.69(m)	26.96	20	2.32 (2H,m)	27.22	28	1.811 (3H, s)	16.12
5	0.89(m)	56.24	13	3.51 (dd,11.8Hz; 2.2Hz)	75.91	21	5.37(bt, 6.8)	124.98	29	1.682 (3H,s)	17.72
6	1.27(m); 1.64(m)	20.11	14	—	73.04	22	—	131.09	30	1.802 (3H,s)	25.83
7	1.51(m); 1.80(m)	42.08	15	1.56 (m); 1.96(td,12.7Hz; 4.9Hz)	37.40	23	0.957 (3H, s)	33.45	OH	2.49 (br s)	
8	—	74.94	16	2.39(m); 2.60(m)	22.58	24	0.889 (3H, s)	21.46			

Product 35



Product 35 (oil) from (6R, 7S)- and (6S, 7R)-SQ diols

$[\alpha]_D^{25} = -3.03$ (c = 0.33, CHCl₃)



600 MHz

NMR data in C₆D₆, solvent peak : ¹H; 7.28 ppm, ¹³C; 128.0 ppm

NO.	¹ H	¹³ C	NO.	¹ H	¹³ C	NO.	¹ H	¹³ C	NO.	¹ H	¹³ C
1	1.23(m);1.77(m)	27.88	9	—	135.52	17	5.42(m)	124.92 ^d	25	1.200 (3H, s)	22.67
2	1.48(m);1.64(m)	16.25	10	5.55(bt, 4.8)	124.97 ^d	18	—	135.14 ^a	26	1.788 (3H, s)	16.25
3	1.24 (m); 1.35(m)	36.66	11	2.27 (2H,m)	28.75 ^e	19	2.24 (2H, m)	40.22	27	1.735 (3H, s)	16.11 ^c
4	—	71.73	12	2.27 (2H, m)	28.78 ^e	20	2.32 (2H,m)	27.24 ^b	28	1.735 (3H, s)	16.17 ^c
5	—	76.38	13	5.45(m)	124.92 ^d	21	5.37(bt,4.8)	124.87 ^d	29	1.693 (3H, s)	17.72
6	3.57(bd, 10.4)	77.80	14	—	134.93 ^a	22	—	131.08	30	1.805 (3H, s)	25.83
7	1.63 (m), 1.75(m)	29.00	15	2.24 (2H, m)	40.22	23	1.153 (3H,s)	33.32	OH	2.92 (bs)	
8	2.40(m) , 2.71(m)	37.52	16	2.32 (2H)	27.13 ^b	24	1.216 (3H, s)	27.42			

The carbon signals labelled with the symbols a-d are exchangeable