(1*S, 2*R**)-2-(4-Methylsulfanylphenyl)-1-phenylpent-4-ene-1,2-diol (24)**

Benzoin **16** (1.29 g, 5 mmol), allyl bromide (0.89 g, 7.5 mmol), indium metal (0.57 g, 5 mmol) were taken in THF-H_2O (2:1) mixture (10 ml) and the reaction mixture was stirred at 0 ^oC till the indium metal was dissolved. The turbid reaction mixture was treated with 4N HCl and was extracted with $CHCl_3$ (3x25 ml). The organic phase was dried over Na_2SO_4. The solvent was distilled off and the residue was column chromatographed (silica gel, 60-120 mesh) using ethyl acetate, hexane as eluents to isolate pure **24** (1.28 g, 85%) as white solid, mp 109 ^oC. (Found: C, 71.68; H, 6.52; S, 10.66. $C_{18}H_{20}O_2S$ requires C, 71.96; H, 6.71; S, 10.71%); $\nu_{max}(CHCl_3)/cm^{-1}$: 3411 (OH), 3450 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si) 2.58 (3H, s, SCH_3), 2.68 (1H, s, OH, exchanges with D_2O), 2.73 (1H, dd, ^2J = 14.1 Hz, ^3J = 9.0 Hz, 1H of CH_2), 2.90 (1H, dd, ^2J = 14.1 Hz, ^3J = 5.7 Hz, 1H of CH_2), 4.79 (1H, s, CH), 5.08-5.53 (2H, m, =CH_2), 5.54-5.58 (1H, m, =CH), 7.00-7.11 (6H, m, ArH), 7.14-7.21 (3H, m, ArH); δ_C (75.4 MHz, $CDCl_3$. Me_4Si): 15.61 (+ve, CH_3), 42.34 (-ve, CH_2), 78.12 (ab, C), 80.41 (+ve, CH), 119.95 (-ve, =CH_2), 125.54 (+ve, ArCH), 127.15 (+ve, ArCH), 127.51 (+ve, ArCH), 127.68 (+ve, ArCH), 127.79 (+ve, ArCH), 133.08 (+ve, =CH), 136.91 (ab, ArC), 138.24 (ab, ArC), 139.13 (ab, ArC); *m/z* (FAB) 299.6 (M^+).

(1S*, 2R*)-2-(4-Methoxyphenyl)-1-phenylpent-4-ene-1,2-diol (25)

According to the preparation of **24**, **25** was obtained from benzoin **17** (1.21 g, 5 mmol), allyl bromide (0.89 g, 7.5 mmol) and indium metal (0.57 g, 5 mmol) as light yellow liquid. Yield 69%; (Found C, 76.5; H, 6.90. $C_{18}H_{20}O_3$ requires C, 76.03; H, 7.09%); ν_{max} $(CHCl_3)/cm^{-1}$: 3390 (OH), 3430 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si) 2.53 (1H, bs, OH, exchanges with D_2O), 2.57 (1H, bs, OH, exchanges with D_2O), 2.71 (1H, dd, ^2J =14 Hz, ^3J = 8.7 Hz, 1H of CH_2), 2.90 (1H, dd, ^2J = 14 Hz, ^3J = 5.4 Hz, 1H of CH_2), 3.77 (3H, s, OCH_3), 4.81 (1H, s, CH), 5.08-5.19 (2H, m, =CH_2), 5.51-5.63 (1H, m, =CH), 6.74 (2H, d, *J* = 8.7 Hz, ArH), 6.99-7.21 (7H, m, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 42.32 (-ve, CH_2), 55.15 (+ve, CH_3), 78.08 (ab, C), 80.54 (+ve, CH), 112.88 (+ve, CH), 119.73 (-ve, =CH_2), 127.42 (+ve, ArCH), 127.56 (+ve, ArCH), 127.81 (+ve, ArCH), 127.92 (+ve, ArCH), 127.97 (+ve, ArCH), 128.40 (+ve, ArCH), 130.12 (+ve, ArCH), 132.28 (+ve, ArCH), 133.23 (+ve, ArCH), 133.31 (+ve, =CH), 133.36 (ab, ArC), 139.31 (ab, ArC), 158.39 (ab, ArC); *m/z* (FAB) 284 (M^+).

(1*S, 2*R**)-2-(4-Methanesulfonylphenyl)-1-phenylpent-4-ene-1,2-diol (27)**

To the ice cold solution of **25** (2.8 g, 10 mmol) in THF-H_2O (1:1) was added oxone (20 mmol) and the reaction mixture was stirred at 0 ^{o}C for 2 h. After the completion of the reaction (TLC monitoring), the reaction mixture was extracted with ethyl acetate. The organic phase was dried over Na_2SO_4. The solvent was distilled off under vacuum and the pure compound **27** (3.29 g, 90%) was isolated through recrystallization with $CHCl_3$–diethyl ether (1:20) as white solid, mp 142 ^{o}C. ν_{max} ($CHCl_3$)/cm^{-1}: 3481(OH), 3448 (OH), 1311 (S=O); δ_H (300 MHz, $CDCl_3$, Me_4Si): 2.84 (2H, m, 1H of CH_2 and 1H of OH) 2.94 (1H, dd, ^2J = 14.7 Hz, ^3J = 6.0 Hz, 1H of CH_2), 3.01 (3H, s, SO_2CH_3), 4.83 (1H, s, CH), 5.1-5.20 (2H, m, =CH_2), 5.46-5.60 (1H, m, =CH), 7.00 (2H, d, J = 6.3 Hz, ArH), 7.14-7.22 (3H, m, ArH), 7.35 (2H, d, J = 8.7 Hz, ArH), 7.75 (2H, d, J = 8.4 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 42.66, 44.47, 78.34, 80.14, 120.45, 126.51, 127.63, 127.72, 127.77, 128.12, 132.33, 138.67, 148.21, 169.46; *m/z* [MALDI (TOF)] 355.30 (M^++ Na^+), 371.69 (M^++ K^+).

(2R*,3S*,5R*)-2,3-Bis-(2-chlorophenyl)-5-iodomethyl-tetrahydrofuran-3-ol (29A) and (2R*, 3S*, 5S*)-2,3-Bis-(2-chlorophenyl)-5-iodomethyltetrahydrofuran-3-ol (29B)

Sodium hydrogen carbonate (0.75 g, 9 mmol) was added to an ice cold solution of homoallylic alcohol **19** (0.96 g, 3 mmol) in dry acetonitrile (5 ml) and resulting suspension was stirred for 15 min at 0 ^{o}C. Iodine (2.28 g, 9 mmol) was added and stirring was continued for 3-4 hrs at 0 ^{o}C (TLC monitoring). The reaction mixture was diluted with water and extracted with $CHCl_3$. The organic layer was washed with saturated aqueous sodium thiosulphate to remove excess of iodine and dried over anhydrous sodium sulphate. The residue obtained after removing the chloroform was column chromatographed (silica gel 100-200) to isolate **29A** (higher R_f component, 9%) and **29B** (lower R_f component, 72%) as thick liquids.

29A

(Found C, 45.23; H, 3.23. $C_{17}H_{15}$ Cl_2IO_2 requires C, 45.46; H, 3.37%). $\nu_{max}(CHCl_3)/cm^{-1}$: 3434 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si) 1.58 (1H, bs, OH, exchanges with D_2O), 2.15 (1H, dd, ^2J = 14.1 Hz, ^3J = 6.3 Hz, 4-H), 3.49 (1H, dd, ^2J = 14.1 Hz, ^3J = 8.7 Hz, 4-H), 3.56 (1H, dd, ^2J = 10.5 Hz, ^3J = 4.8 Hz, CH_2I), 3.72 (1H, dd, ^2J = 10.2 Hz, ^3J = 5.4 Hz, CH_2I), 4.47–4.55 (1H, m, 5-H), 6.27 (1H, s, 2-H), 7.13-7.25 (4H, m, ArH), 7.34 (1H, t, J = 7.5 Hz, ArH), 7.39 (1H, dd, ^3J = 7.5 Hz, ^3J = 1.8 Hz, ArH) 7.48 (1H, dd, ^3J = 7.5 Hz, ^3J = 2.4 Hz, ArH) 7.81 (1H, dd, ^3J = 7.5 Hz, ^3J = 1.5 Hz, ArH); On decoupling the double doublet at δ 3.72 converted double doublet at δ 3.56 into a doublet. Similarly the decoupling of double doublet at δ 2.15 converts the double doublet at δ 3.49 into a doublet. δ_C (75.4 MHz, $CDCl_3$, Me_4Si): . 11.76 (-ve, CH_2I), 46.84 (-ve, C-4), 76.24 (+ve, C-5), 82.06 (ab, C-3), 82.84 (+ve, C-2), 126.58 (+ve, ArCH), 126.92 (+ve, ArCH), 128.11 (+ve, ArCH), 128.98 (+ve, ArCH), 129.36 (+ve, ArCH), 129.56 (+ve, ArCH), 130.59 (+ve, ArCH), 131.14 (+ve, ArCH), 132.91 (ab, ArC), 132.97 (ab, ArC), 134.85 (ab, ArC), 138.35 (ab, ArC); *m/z* (FAB) 449.65 (M^+).

29B

(Found C, 45.33; H, 3.19. $C_{17}H_{15}Cl_2IO_2$ requires C, 45.46; H, 3.37%). ν_{max} $(CHCl_3)/cm^{-1}$: 3434 (OH); δ_H (300 MHz, $CDCl_3Me_4Si$): 2.00 (1H, d, J = 1.8 Hz, OH, exchanges with D_2O), 2.43 (1H, dd, ^2J = 13.2 Hz, ^3J = 5.7 Hz, 4-H), 3.23 (1H, ddd, ^2J = 13.2 Hz, ^3J = 9.6 Hz, ^4J = 1.8 Hz, 4-H, gets converted into dd with ^2J = 13.2 Hz, ^3J = 9.6 Hz on D_2O exchange), 3.50 (2H, two doublets, J = 2.4 Hz, J = 0.9 Hz, CH_2I), 4.72–4.81 (1H, m, 5-H), 6.53 (1H, s, 2-H), 7.16-7.25 (4H, m, ArH), 7.30-7.40 (2H, m, ArH), 7.49-7.52 (1H, m, ArH), 7.68 (1H, dd, ^3J = 7.8 Hz, ^3J = 1.5, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si):. 9.37 (-ve, CH_2I), 35.36 (-ve, C-4), 78.85 (+ve, C-5), 82.68 (+ve, C-2), 83.29 (ab, C-3), 126.79 (+ve, ArCH), 126.94 (+ve, ArCH), 128.09 (+ve, ArCH), 129.08 (+ve, ArCH), 129.49 (+ve, ArCH), 129.76 (+ve, ArCH), 129.86 (+ve, ArCH), 131.42 (+ve, ArCH), 131.64 (ab, ArC), 133.10 (ab, ArC), 133.90 (ab, ArC), 137.72 (ab, ArC); *m/z* (FAB) 449.65 (M^+).

(2*R, 3*S**, 5*R**)-2,3-Bis-(4-chlorophenyl)-5-iodomethyl-tetrahydrofuran-3-ol (30A) and (2*R**, 3*S**, 5*S**)-2,3-Bis-(4-chlorophenyl)-5-iodomethyltetrahydrofuran-3-ol (30B)**

According to the preparation of **29A**, **29B**, compounds **30A**, **30B** were obtained from **20** (0.96 g, 3 mmol), $NaHCO_3$ (0.75 g, 9 mmol), iodine (2.28 g, 9 mmol) as transparent (higher R_f, 10%) and pale yellow (lower R_f, 72%) liquids respectively.

30A

(Found C, 45.01; H, 3.15. $C_{17}H_{15}Cl_2IO_2$ requires C, 45.46; H, 3.37%). ν_{max} ($CHCl_3$)/cm^{-1}: 3434 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.89 (1H, bs, OH, exchanges with D_2O), 2.43 (1H, dd, ^2J = 14.4 Hz, ^3J = 4.2 Hz, 4-H), 2.75 (1H, dd, ^2J = 14.1 Hz, ^3J = 9 Hz, 4-H), 3.58 (1H, dd, ^2J = 9.9 Hz, ^3J = 5.7 Hz, CH_2I), 3.63 (1H, dd, ^2J = 9.9 Hz, ^3J = 6.6 Hz, CH_2I), 4.49–4.58 (1H, m, 5-H), 5.15 (1H, s, 2-H), 6.97 (2H, d, *J* = 8.4 Hz, ArH), 7.23 (2H, d, *J* = 8.4 Hz, ArH), 7.33 (4H, two double doublets, *J* = 6.3 Hz, *J* = 2.7 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 10.61 (-ve, CH_2I), 48.34 (-ve, C-4), 77.60 (+ve, C-5), 82.02 (ab, C-3), 90.15 (+ve, C-2), 126.76 (+ve, ArCH), 127.94 (+ve, ArCH), 128.49 (+ve, ArCH), 128.63 (+ve, ArCH), 132.98 (ab, ArC), 133.41 (ab, ArC), 134.30 (ab, ArC), 140.17 (ab, ArC); *m/z* [MALDI (TOF)] 450.02 (M^++1).

30B

(Found C, 45.12; H, 3.08. $C_{17}H_{15}Cl_2IO_2$ requires C, 45.46; H, 3.37%). ν_{max} ($CHCl_3$)/cm^{-1}: 3434 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.69 (1H, bs, OH, exchanges with D_2O), 2.43 (1H, dd, ^2J = 13.2 Hz, ^3J = 9.6 Hz, 4-H), 2.58 (1H, dd, ^2J = 13.2 Hz, ^3J = 6.0 Hz, 4-H), 3.49 (1H, dd, ^2J = 10.2 Hz, ^3J =3.6 Hz, CH_2I), 3.60 (1H, dd, ^2J = 10.2 Hz, ^3J = 6.0 Hz, CH_2I), 4.48-4.56 (1H, m, 5-H), 5.42 (1H, s, 2-H), 6.96 (2H, d, *J* = 8.4 Hz, ArH), 7.23 (2H, d, *J* = 8.4 Hz, ArH), 7.35 (4H, m, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 12.20 (-ve, CH_2I), 49.31 (-ve, C-4), 77.08 (+ve, C-5), 83.18 (ab, C-3), 89.21 (+ve, C-2), 126.75 (+ve, ArCH), 127.94 (+ve, ArCH), 128.59 (+ve, ArCH), 128.71 (+ve, ArCH), 133.34 (ab, ArC), 133.57 (ab, ArC), 134.35 (ab, ArC), 139.46 (ab, ArC); *m/z* [MALDI (TOF)] 450.02 (M^++1).

(2R*,3S*,5R*)-2,3-Bis-(4-fluorophenyl)-5-iodomethyl-tetrahydrofuran-3-ol (31A) and (2R*, 3S*, 5S*)-2,3-Bis-(4-fluorophenyl)-5-iodomethyltetrahydrofuran-3-ol

(31B) According to the preparation of **29A**, **29B**, compounds **31A**, **31B** were obtained from **21** as transparent (higher R_f, 25%) and pale yellow (lower R_f, 57%) liquids.

31A

(Found: C, 49.21; H, 3.58. $C_{17}H_{15}F_2IO_2$ requires C, 49.06; H, 3.63%). ν_{max} ($CHCl_3$)/cm^{-1}: 3411 (OH); δ_H (300 MHz, $CDCl_3$; Me_4Si): 1.88 (1H, bs, OH, exchanges with D_2O), 2.43 (1H, dd, ^2J = 14.1 Hz, ^3J = 3.9 Hz, 4-H), 2.75 (1H, dd, ^2J =14.1 Hz, ^3J = 9.0 Hz, 4-H), 3.58 (1H, dd, ^2J = 9.9 Hz, ^3J = 5.7 Hz, CH_2I), 3.63 (1H, dd, ^2J = 9.9 Hz, ^3J = 6.6 Hz, CH_2I), 4.49–4.58 (1H, m, 5-H), 5.16 (1H, s, 2-H), 6.91-7.08 (2H, m, ArH), 7.19 (2H, t, J = 8.4 Hz, ArH), 7.35 (2H, dd, ^3J = 9.0 Hz, ^3J = 5.7 Hz, ArH), 8.02 (2H, dd, ^3J = 9.0 Hz, ^3J = 5.1 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 10.67 (-ve, CH_2I), 48.21 (-ve, C-4), 77.56 (+ve, C-5), 81.88 (ab, C-3), 90.22 (+ve, C-2), 115.24 (+ve, d, $J_{C\text{-}F(ortho)}$ = 21.67 Hz, ArCH), 115.31 (+ve, d, $J_{C\text{-}F(ortho)}$ = 21.60 Hz, ArCH), 127.01 (+ve, d, $J_{C\text{-}F(meta)}$ = 8.03 Hz, ArCH), 128.33 (+ve, d, $J_{C\text{-}F(meta)}$ = 8.10 Hz, ArCH), 130.19 (ab, d, $J_{C\text{-}F(para)}$ = 3.08 Hz, ArC), 137.43 (ab, d, $J_{C\text{-}F(para)}$ = 3.08 Hz, ArC), 162.37 (ab, d, $J_{C\text{-}F}$ = 246.07 Hz, ArC), 163.06 (ab, d, $J_{C\text{-}F}$ = 245.4 Hz, ArC); *m/z* [MALDI (TOF)] 438.9 ($M^+ + Na^+$), 453.1 (M^+-2 + K^+).

31B

(Found: C, 49.21; H, 3.58. $C_{17}H_{15}F_2IO_2$ requires C, 49.06; H, 3.63%). ν_{max} ($CHCl_3$)/cm^{-1}: 3411 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.81 (1H, bs, OH, exchanges with D_2O), 2.43 (1H, dd, ^2J = 13.2 Hz, ^3J = 9.6 Hz, 4-H), 2.58 (1H, dd, ^2J = 13.2 Hz, ^3J = 5.7 Hz, 4-H), 3.48 (1H, dd, ^2J = 10.2 Hz, ^3J = 3.3 Hz, CH_2I), 3.59 (1H, dd, ^2J = 10.2 Hz, ^3J = 6.0 Hz, CH_2I), 4.48-4.56 (1H, m, 5-H), 5.41 (1H, s, 2-H), 6.90-7.08 (6H, m, ArH), 7.38 (2H, dd, ^2J = 9.0 Hz, ^3J = 2.1 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 12.23 (-ve, CH_2I), 49.18 (-ve, C-4), 77.00 (+ve, C-5), 82.96 (ab, C-3), 89.16 (+ve, C-2), 115.21 (+ve, d, $J_{C\text{-}F(ortho)}$ = 21.07 Hz, ArCH), 115.29 (+ve, d, $J_{C\text{-}F(ortho)}$ = 21.00 Hz, ArCH), 126.99 (+ve, d, $J_{C\text{-}F(meta)}$ = 8.03 Hz, ArCH), 128.33 (+ve, d, $J_{C\text{-}F(meta)}$ = 8.03 Hz, ArCH), 130.56 (ab, d, $J_{C\text{-}F(para)}$ = 3.08 Hz, ArC), 136.69 (ab, d, $J_{C\text{-}F(para)}$ = 3.08 Hz, ArC), 162.41 (ab, d, $J_{C\text{-}F}$ = 244.8 Hz, ArC), 162.99 (ab, d, $J_{C\text{-}F}$ = 244.7 Hz, ArC); *m/z* [MALDI (TOF)] 438.9 ($M^+ + Na^+$), 453.1 (M^+-2 + K^+).

(2*R,3*S**,5*R**)-5-Iodomethyl-2,3-bis-(4-methoxyphenyl)-tetrahydrofuran-3-ol (32A) and (2*R**,3*S**,5*S**)-5-Iodomethyl-2,3-bis-(4-methoxyphenyl)-tetrahydrofuran-3-ol (32B)**

According to the preparation of **29A**, **29B**, compounds **32A**, **32B** were obtained from **22** as white solid (higher R_f, 12%, mp 132 ^oC) and thick liquid (lower R_f, 62%), respectively.

32A

(Found: C, 51.67; H, 4.59. $C_{19}H_{21}IO_4$ requires C, 51.83; H, 4.81%). ν_{max} ($CHCl_3$)/cm^{-1}: 3060 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.80 (1H, bs, due to OH, exchanges with D_2O), 2.42 (1H, dd, ^2J = 14.4 Hz, ^3J = 3.6 Hz, 4-H), 2.72 (1H, dd, ^2J = 14.1 Hz, ^3J = 9.0 Hz, 4-H), 3.59 (2H, d, J = 6.6 Hz, CH_2I), 3.75 (3H, s, OCH_3), 3.81 (3H, s, OCH_3), 4.53–4.57 (1H, m, 5-H), 5.17 (1H, s, 2-H), 6.78 (2H, d, J = 9.0 Hz, ArH), 6.88 (2H, d, J = 8.7 Hz, ArH), 6.98 (2H, d, J = 8.7 Hz, ArH), 7.27 (2H, d, J = 9.0 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me4Si):. 10.86 (-ve, CH_2I), 47.78 (-ve, C-4), 55.14 (+ve, CH_3), 55.22 (+ve, CH_3), 77.81 (+ve, C-5), 81.79 (ab, C-3), 90.52 (+ve, C-2), 113.63 (+ve, ArCH), 126.43 (+ve, ArCH), 126.59 (ab, ArC), 127.88 (+ve, ArCH), 134.05 (ab, ArC), 158.62 (ab, ArC), 159.51 (ab, ArC); *m/z* (FAB) 440 (M^+).

32B

(Found: C, 51.77; H, 4.74. $C_{19}H_{21}IO_4$ requires C, 51.83; H, 4.81%). ν_{max} ($CHCl_3$)/cm^{-1}: 3040 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.80 (1H, bs, OH, exchanges with D_2O), 2.38 (1H, dd, ^2J = 13.2 Hz, ^3J = 9.6 Hz, 4-H), 2.55 (1H, dd, ^2J = 13.2 Hz, ^3J = 5.7 Hz, 4-H), 3.47 (1H, dd, ^2J = 10.2 Hz, ^3J = 3.6 Hz, CH_2I), 3.55 (1H, d, ^2J = 10.2 Hz, ^3J = 6.0 Hz, CH_2I), 3.73 (3H, s, CH_3), 3.79 (3H, s, CH_3), 4.46–4.54 (1H, m, 5-H), 5.39 (1H, s, 2-H), 6.76 (2H, d, J = 8.7 Hz, ArH), 6.87 (2H, d, J = 8.7 Hz, ArH), 6.97 (2H, d, J = 8.7 Hz, ArH), 7.31 (2H, d, J = 8.7 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 12.60 (-ve, CH_2I), 48.96 (-ve, C-4), 55.07 (+ve, CH_3), 55.14 (+ve, CH_3), 76.77 (+ve, C-5), 82.88 (ab, C-3), 89.39 (+ve, C-2), 113.58 (+ve, ArCH), 126.39 (+ve, ArCH), 126.87 (ab, ArC), 127.83 (+ve, ArCH), 133.22 (ab, ArC), 158.62 (ab, ArC), 159.41 (ab, ArC); *m/z* (FAB) 440 (M^+).

(2*R, 3*S**, 5*S**)-5-Iodomethyl-2,3-bis-(4-methanesulfonyl-phenyl)-tetrahydrofuran-3-ol (33B)**

According to the preparation of **29A**, **29B**, compound **33B** was obtained from **26** as white solid (85%), mp 166 ^oC; (Found: C, 42.35; H, 3.65; S, 11.96. $C_{19}H_{21}IO_6S_2$ requires C, 42.54; H, 3.95; S, 11.96%). ν_{max} ($CHCl_3$)/cm^{-1}: 3430 (OH), 1320 (S=O); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.26 (1H, bs, OH, exchanges with D_2O), 2.55 (1H, dd, ^2J = 13.2 Hz, ^3J = 9.6 Hz, 4-H), 2.65 (1H, dd, ^2J = 13.5 Hz, ^3J = 6.0 Hz, 4-H), 3.00 (3H, s, SO_2CH_3), 3.08 (3H, s, SO_2CH_3), 3.52 (1H, dd, ^2J = 10.5 Hz, ^3J = 3.6 Hz, CH_2I), 3.65 (1H, d, ^2J = 10.5 Hz, ^3J = 6.3 Hz, CH_2I), 4.58–4.67 (1H, m, 5-H), 5.49 (1H, s, 2-H), 7.20 (2H, d, *J* = 8.4 Hz, ArH), 7.66 (2H, d, *J* = 8.7 Hz, ArH), 7.76 (2H, d, *J* = 8.1 Hz, ArH), 7.90 (2H, d, *J* = 8.4 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 11.78 (-ve, CH_2I), 44.36 (+ve, CH_3), 44.44 (+ve, CH_3), 49.93 (-ve, C-4), 77.42 (+ve, C-5), 83.74 (ab, C-3), 89.18 (+ve, C-2), 126.51 (+ve, ArCH), 127.35 (+ve, ArCH), 127.64 (+ve, ArCH), 127.80 (+ve, ArCH), 140.11 (ab, ArC), 140.56 (ab, ArC), 141.34 (ab, ArC), 146.97 (ab, ArC); *m/z* [MALDI (TOF)] 559.83 (M^++ Na^+), 575.94 (M^++ K^+).

(2*R,3*S**,5*R**)-5-Iodomethyl-3-(4-methylsulfanylphenyl)-2-phenyltetrahydrofuran-3-ol (34A) and (2*R**, 3*S**, 5*S**)-5-Iodomethyl-3-(4-methylsulfanylphenyl)-2-phenyltetrahydro-furan-3-ol (34B)**

According to the preparation of **29A**, **29B**, compounds **34A**, **34B** were obtained from **24** as white solid (higher R_f, 14%, mp 130 ^oC) and thick liquid (lower R_f, 72%), respectively.

34A

(Found: C, 50.50; H, 4.38. $C_{18}H_{19}IO_2S$ requires C, 50.71; H, 4.49). ν_{max} ($CHCl_3$)/cm^{-1}: 3434 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.82 (1H, bs, OH, exchanges with D_2O), 2.45 (1H, dd, ^2J = 14.1 Hz, ^3J = 3.9 Hz, 4-H), 2.50 (3H, s, SCH_3), 2.74 (1H, dd, ^2J = 14.1 Hz, ^3J = 9.0 Hz, 4-H), 3.62 (2H, d, *J* = 6.6 Hz, CH_2I), 4.54–4.63 (1H, m, 5-H), 5.24 (1H, s, 2-H), 7.04-7.07 (2H, m, ArH), 7.22-7.32 (7H, m, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 10.66 (-ve, CH_2I), 15.58 (+ve, SCH_3), 48.15 (-ve, C-4), 77.96 (+ve, C-5), 82.12 (ab, C-3), 90.73 (+ve, C-2), 125.82 (+ve, ArCH), 126.21 (+ve, ArCH), 126.59 (+ve, ArCH), 128.29 (+ve, ArCH), 128.39 (+ve, ArCH), 134.63 (ab, ArC), 137.51 (ab, ArC), 138.81 (ab, ArC); *m/z* [MALDI (TOF)] 448.9 ($M^+ + Na^+$), 464.9 ($M^+ + K^+$).

34B

(Found: C, 50.65; H, 4.46. $C_{18}H_{19}IO_2S$ requires C, 50.71; H, 4.49%). ν_{max} ($CHCl_3$)/cm^{-1}: 3434(OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.83 (1H, bs, exchanges with D_2O), 2.39 (1H, dd, ^2J = 13.2 Hz, ^3J = 9.6 Hz, 4-H), 2.47 (3H, s, SCH_3), 2.50 (1H, dd, ^2J= 13.2 Hz, ^3J = 5.7 Hz, 4-H), 3.47 (1H, dd, ^2J = 10.2 Hz, ^3J = 3.6 Hz, CH_2I), 3.52 (1H, dd, ^2J = 10.2 Hz, ^3J = 6.0 Hz, CH_2I), 4.47-4.55 (1H, m, 5-H), 5.45 (1H, s, 2-H), 7.01-7.04 (2H, m, ArH), 7.20-7.24 (5H, m, ArH), 7.31 (2H, d, J = 8.7 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 12.48 (-ve, CH_2I), 15.44 (+ve, SCH_3), 49.19 (-ve, C-4), 77.42 (+ve, C-5), 83.14 (ab, C-3), 89.57 (+ve, C-2), 125.72 (+ve, ArCH), 126.05 (+ve, ArCH), 126.49 (+ve, ArCH), 128.19 (+ve, ArCH), 128.23 (+ve, ArCH), 134.91 (ab, ArC), 137.49 (ab, ArC), 137.86 (ab, ArC); m/z [MALDI (TOF)] 448.9 ($M^+ + Na^+$), 464.9 ($M^+ + K^+$).

(2R*, 3S*, 5S*)-5-Iodomethyl-3-(4-methanesulfonylphenyl)-2-phenyltetrahydrofuran-3-ol (35B)

According to the preparation of **29A**, **29B**, compounds **35B** was obtained from **27** as white solid (84%), mp 161 °C; (Found: C, 47.06; H, 4.04; S, 7.09. $C_{18}H_{19}IO_4S$ requires C, 47.17; H, 4.18; S, 7.00%). ν_{max} ($CHCl_3$)/cm^{-1}): 3470 (OH), 1300 (S=O); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.92 (1H, bs, OH, exchanges with D_2O), 2.46 (1H, dd, ^2J = 13.2 Hz, ^3J = 9.6 Hz, 4-H), 2.65 (1H, dd, ^2J = 13.2 Hz, ^3J = 5.7 Hz, 4-H), 3.08 (3H, s, SO_2CH_3), 3.52 (1H, dd, ^2J = 10.5 Hz, ^3J = 3.6 Hz, CH_2I), 3.63 (1H, d, ^2J = 10.5 Hz, ^3J =6.0 Hz, CH_2I), 4.55–4.59 (1H, m, 5-H), 5.55 (1H, s, 2-H), 7.00 (2H, dd, ^3J = 7.2 Hz, ^3J = 4.8 Hz, ArH), 7.27 (3H, m, ArH), 7.67 (2H, d, J = 6.9 Hz, ArH), 7.95 (2H, dd, ^3J = 8.4 Hz, ^3J = 4.8 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 11.99 (-ve, CH_2I), 44.46 (+ve, SO_2CH_3), 49.74 (-ve, C-4), 77.26 (+ve, C-5), 83.31 (ab, C-3), 89.93 (+ve, C-2), 126.34 (+ve, ArCH), 126.58 (+ve, ArCH), 127.53 (+ve, ArCH), 128.66 (+ve, ArCH), 128.80 (ab, ArC), 134.34 (ab, ArC), 139.70 (ab, ArC), 147.98 (ab, ArC); The assignments of chemical shifts to all the hydrogens and carbons are made on the basis of various NMR experiments like ^{1}H, ^{13}C, HSQC, INEPT long range and NOE; *m/z* [MALDI (TOF)] 457.80 (M^+).

(2*R,3*S**,5*R**)-5-Iodomethyl-3-(4-methoxyphenyl)-2-phenyl-tetrahydrofuran-3-ol (36A) and (2*R**, 3*S**, 5*S**)-5-Iodomethyl-3-(4-methoxyphenyl)-2-phenyltetrahydrofuran-3-ol (36B)**

According to the preparation of **29A**, **29B**, compounds **36A**, **36B** were obtained from **25** as white solid (higher R_f, 12%, mp 128 °C) and thick liquid (lower R_f, 65%), respectively.

36A

(Found: C, 52.59; H, 4.70. $C_{18}H_{19}IO_3$ requires C, 52.70; H, 4.67%). ν_{max} ($CHCl_3$)/cm^{-1}: 3436 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.80 (1H, bs, OH, exchanges with D_2O), 2.43 (1H, dd, ^2J = 14.1 Hz, ^3J = 3.3 Hz, 4-H), 2.74 (1H, dd, ^2J = 14.1 Hz, ^3J = 9.0 Hz, 4-H), 3.62 (2H, d, J = 6.3 Hz, CH_2I), 3.82 (3H, s, OCH_3), 4.54-4.61 (1H, m, 5-H), 5.23 (1H, s, 2-H), 6.87-6.92 (2H, m, ArH), 7.04-7.07 (2H, m, ArH), 7.24-7.35 (5H, m, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 10.71 (-ve, CH_2I), 48.06 (-ve, C-4), 55.26 (+ve, CH_3), 77.97 (+ve, C-5), 82.09 (ab, C-3), 90.74 (+ve, C-2), 113.71 (+ve, ArCH), 126.46 (+ve, ArCH), 126.67 (+ve, ArCH), 128.24 (+ve, ArCH), 133.98 (ab, ArC), 134.82 (ab, ArC), 158.72 (ab, ArC); *m/z* [MALDI (TOF)] 433 (M^++ Na^+), 449 (M^++ K^+).

36B

(Found: C, 52.55; H, 4.50. $C_{18}H_{19}IO_3$ requires C, 52.70; H, 4.67%). ν_{max} ($CHCl_3$)/cm^{-1}: 3436 (OH); δ_H (300 MHz, $CDCl_3$, Me_4Si): 1.72 (1H, bs, OH, exchanges with D_2O), 2.43 (1H, dd, ^2J = 12.9 Hz, ^3J = 9.6 Hz, 4-H), 2.58 (1H, dd, ^2J = 13.2 Hz, ^3J = 5.7 Hz, 4-H), 3.50 (1H, dd, ^2J = 10.2 Hz, ^3J = 3.6 Hz, CH_2I), 3.60 (1H, dd, ^2J = 10.2 Hz, ^3J = 6.0 Hz, CH_2I), 3.83 (3H, s, OCH_3), 4.53-4.55 (1H, m, 5-H), 5.47 (1H, s, 2-H), 6.91 (2H, d, J = 9.0 Hz, ArH), 7.04-7.06 (2H, m, ArH), 7.25-7.26 (3H, m, ArH), 7.34 (2H, d, J = 9.0 Hz, ArH); δ_C (75.4 MHz, $CDCl_3$, Me_4Si): 12.5 (-ve, CH_2I), 49.3 (-ve, C-4), 55.3 (+ve, OCH_3), 77.1 (+ve, C-5), 83.2 (ab, C-3), 89.8 (+ve, C-2), 113.7 (+ve, ArCH), 126.5 (+ve, ArCH), 126.7 (+ve, ArCH), 128.3 (+ve, ArCH), 133.2 (ab, ArC), 135.2 (ab, ArC), 158.8 (ab, ArC); The assignments of chemical shifts to all the hydrogens and carbons are made on the basis of various NMR experiments like ^{1}H, ^{13}C, HSQC, INEPT long range and NOE; *m/z* [MALDI (TOF)] 433 (M^{+}+ Na^{+}), 449 (M^{+}+ K^{+}).