

Supporting Information

**Antimycobacterial Agents. Novel Diarylpyrrole Derivatives of BM212 Endowed
with High Activity toward *Mycobacterium tuberculosis* and Low Cytotoxicity**

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Details of synthesis.

Elemental analysis data of compounds 1-28.

1-(2-Chlorophenyl)pentane-1,4-dione (31a). White needles (yield 45%); Analytical data, mp, and NMR spectrum were consistent with those reported in the literature.¹

1-[2-Fluorophenyl]pentane-1,4-dione (31b). White needles (yield 70%); Analytical data, mp, and NMR spectrum were consistent with those previously reported.¹

1-(4-Methylphenyl)pentane-1,4-dione (31c). White needles (yield 50%); Analytical data, mp, and NMR spectrum were consistent with those reported in the literature.²

1-(3-Methylphenyl)pentane-1,4-dione (31d). White needles (yield 45%); Analytical data, mp, and NMR spectrum were consistent with those reported in the literature.³

1-(2-Methylphenyl)pentane-1,4-dione (31e). White needles (yield 50%); Analytical data, mp, and NMR spectrum were consistent with those reported in the literature.³

1-[4-Fluorophenyl]pentane-1,4-dione (31h). White needles (yield 50%); Analytical data, mp, and NMR spectrum were consistent with those previously reported.⁴

1-(4-Fluorophenyl)-2-methyl-5-(2-fluorophenyl)-1*H*-pyrrole (32b). Mp 125 °C (yield 85%); ¹H NMR (CDCl₃) 7.11-7.06 (m, 4H), 7.01-6.94 (m, 4H), 6.35(m, 1H), 6.13-6.12 (m, 1H), 2.16-2.13 (s, 3H). Anal. (C₁₇H₁₃IF₂N) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-5-(4-methylphenyl)-1*H*-pyrrole (32c). Mp 132 °C (yield 80%); ¹H NMR (CDCl₃) 7.14-7.11 (m, 2H), 7.07-7.05 (m, 2H), 7.03-6.93 (m, 4H), 6.31 (m, 1H), 6.08 (m, 1H), 2.26-2.25 (m, 3H), 2.12 (s, 3H). Anal. (C₁₈H₁₆FN) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-5-(3-methylphenyl)-1*H*-pyrrole (32d). Mp 130 °C (yield 75%); ¹H NMR (CDCl₃) 7.13-7.11 (m, 2H), 7.07-6.99 (m, 2H), 6.93-6.90 (m, 2H), 6.78-6.76 (m, 2H), 6.31 (m, 1H), 6.08-6.07 (m, 1H), 2.21-2.17 (m, 3H), 2.14 (s, 3H). Anal. (C₁₈H₁₆FN) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-5-(2-methylphenyl)-1*H*-pyrrole (32e). Mp 128 °C (yield 70%); ¹H NMR (CDCl₃) 7.10-7.03 (m, 2H), 7.02 -6.94 (m, 6H), 6.16 (m, 1H), 6.11-6.10 (m, 1H), 2.17-2.16 (m, 3H), 2.11 (s, 3H). Anal. (C₁₈H₁₆FN) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-5-(2,4-dichlorophenyl)-1*H*-pyrrole (32f). Mp 138 °C (yield 90%); ¹H NMR (CDCl₃) 7.37-7.35 (m, 1H), 7.34-7.32 (m, 1H), 7.23-7.20 (m, 3H), 7.17-7.00 (m, 2H), 6.30 (m, 1H), 6.13-6.12 (m, 1H), 2.14 (s, 3H). Anal. (C₁₇H₁₂Cl₂FN) C, H, N, Cl, F.

1-(4-Fluorophenyl)-2-methyl-5-(2,4-difluorophenyl)-1*H*-pyrrole (32g). Mp 129 °C (yield 80%); ¹H NMR (CDCl₃) 7.09-6.98 (m, 5 H), 6.73-6.66 (m, 2H), 6.30 (m, 1H), 6.12 (m, 1H), 2.14 (s, 3H). Anal. (C₁₇H₁₂F₃N) C, H, N, F.

1-(2-Chlorophenyl)-2-methyl-5-(4-fluorophenyl)-1*H*-pyrrole (32h). Mp 125 °C (yield 75%); ¹H NMR (CDCl₃) 7.47 (m, 1 H), 7.33-7.20 (m, 3H), 7.06-7.03 (m, 2H), 6.86-6.81 (m, 2H), 6.31 (m, 1H), 6.12-6.10 (m, 1H), 2.06 (s, 3H). Anal. (C₁₇H₁₃ClFN) C, H, N, Cl, F.

1-(2-Fluorophenyl)-2-methyl-5-(4-fluorophenyl)-1*H*-pyrrole (32i). Mp 123 °C (yield 85%); ¹H NMR (CDCl₃) 7.37-7.34 (m, 1H), 7.16-7.12 (m, 3H), 7.06-7.02 (m, 2H), 6.87-6.82 (m, 2H), 6.31 (m, 1H), 6.11 (m, 1H), 2.10 (s, 3H). Anal. (C₁₇H₁₃FN) C, H, N, F.

1-(4-Methylphenyl)-2-methyl-5-(4-fluorophenyl)-1*H*-pyrrole (32j). Mp 130 °C (yield 80%); ¹H NMR (CDCl₃) 7.27-7.25 (m, 2H), 7.16 (m, 2H), 7.01 (m, 4H), 6.28 (m, 1H), 6.06 (m, 1H), 2.37 (m, 3H), 2.11 (s, 3H). Anal. (C₁₈H₁₆FN) C, H, N, F.

1-(3-Methylphenyl)-2-methyl-5-(4-fluorophenyl)-1*H*-pyrrole (32k). Mp 128 °C (yield 70%); ¹H NMR (CDCl₃) 7.26-7.24 (m, 3H), 6.99-6.84 (m, 3H), 6.83-6.80 (m, 2H), 6.29 (m, 1H), 6.08 (m, 1H), 2.32 (m, 3H), 2.12 (s, 3H). Anal. (C₁₈H₁₆FN) C, H, N, F.

1-(2,4-Dichlorophenyl)-2-methyl-5-(4-fluorophenyl)-1*H*-pyrrole (32m). Mp 135 °C (yield 70%); ¹H NMR (CDCl₃) 7.49-7.47 (m, 1H), 7.26-7.23 (m, 1H), 7.15-7.13 (m, 1H), 7.03 (m, 2H), 6.87-6.85 (m, 2H), 6.31 (m, 1H), 6.11 (m, 1H), 2.04 (s, 3H). Anal. (C₁₇H₁₂Cl₂FN) C, H, N, Cl, F.

1-(2,4-Difluorophenyl)-2-methyl-5-(4-fluorophenyl)-1*H*-pyrrole (32n). Mp 133 °C (yield 85%); ¹H NMR (CDCl₃) 7.11-7.02 (m, 3H), 6.94-6.85 (m, 4H), 6.31 (m, 1H), 6.11 (m, 1H), 2.09 (s, 3H). Anal. (C₁₇H₁₂F₃N) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(2-chlorophenyl)-1*H*-pyrrole (2). Mp 82 °C (yield 80%); ¹H NMR (CDCl₃) 7.27-7.25 (m, 2H), 7.10-7.04 (m, 4H), 7.03-6.92 (m, 2H), 6.28 (s, 1H), 3.51-3.49 (s, 2H), 2.49 (s broad, 8H), 2.30-2.28 (m, 3H), 2.10 (s, 3H). Anal. (C₂₃H₂₅ClFN₃) C, H, N, Cl, F.

1-(4-Fluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(2-fluorophenyl)-1*H*-pyrrole (3). Mp 120 °C (yield 60%); ¹H NMR (CDCl₃) 7.36 (m, 2H), 7.10-6.87 (m, 6H), 6.34 (s, 1H), 3.47 (s, 2H), 2.78 (s broad, 4H), 2.71 (s broad, 4H), 2.07 (s, 3H). Anal. (C₂₂H₂₂F₂N₂S) C, H, N, S, F.

1-(4-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(2-fluorophenyl)-1*H*-pyrrole (4). Mp 83 °C (yield 40%); ¹H NMR (CDCl₃) 7.36 (m, 2H), 7.10-6.87 (m, 6H), 6.34 (s, 1H), 3.51-3.49 (m, 2H), 2.49 (s broad, 8H), 2.30-2.28 (m, 3H), 2.10 (s, 3H). Anal. (C₂₃H₂₅F₂N₃) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(4-methylphenyl)-1*H*-pyrrole (5). Oil (yield 45%); ¹H NMR (CDCl₃) 7.27-7.25 (m, 4H), 7.16 (m, 2H), 7.01-6.97 (m, 2H), 6.27 (s, 1H), 3.46 (s, 2H), 2.78 (s broad, 4H), 2.71 (s broad, 4H), 2.37 (m, 3H), 2.04 (s, 3H). Anal. (C₂₃H₂₅FN₂S) C, H, N, S, F.

1-(4-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-methylphenyl)-1*H*-pyrrole (6) Mp 129 °C (yield 39%); ¹H NMR (CDCl₃) 7.27-7.25 (m, 4H), 7.16 (m, 2H), 7.01-6.97 (m, 2H), 6.27 (s, 1H), 3.47 (m, 2H), 2.52 (s broad, 8H), 2.29 (m, 3H), 2.09 (s, 3H). Anal. (C₂₄H₂₈FN₃) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(3-methylphenyl)-1*H*-pyrrole

(7). Mp 100 °C (yield 55%); ^1H NMR (CDCl_3) 7.27 (m, 1H), 7.13-7.11 (m, 2H), 7.08-7.01 (m, 2H), 6.93 (m, 2H), 6.92-6.76 (m, 1H), 6.32 (s, 1H), 3.50 (m, 2H), 2.81 (s broad, 4H), 2.74 (s broad, 4H), 2.22 (m, 3H), 2.06 (s, 3H). Anal. ($\text{C}_{23}\text{H}_{25}\text{FN}_2\text{S}$) C, H, N, S, F.

1-(4-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(3-methylphenyl)-1*H*-pyrrole (8). Mp 113 °C (yield 35%); ^1H NMR (CDCl_3) 7.27-7.25 (m, 2H), 7.00-6.92 (m, 4H), 6.84 (m, 2H), 6.14 (s, 1H), 3.47 (m, 2H), 2.52 (s broad, 8H), 2.24 (m, 3H), 2.08 (s, 3H). Anal. ($\text{C}_{24}\text{H}_{28}\text{FN}_3$) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(2-methylphenyl)-1*H*-pyrrole

(9). Oil (yield 55%); ^1H NMR (CDCl_3) 7.38-7.35 (m, 1H), 7.08 (m, 2H), 7.01-6.92 (m, 5H), 6.14 (s, 1H), 3.53-3.48 (m, 2H), 2.80 (s broad, 4H), 2.72 (s broad, 4H), 2.15 (m, 3H), 2.08 (s, 3H). Anal. ($\text{C}_{23}\text{H}_{25}\text{FN}_2\text{S}$) C, H, N, S, F.

1-(4-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(2-methylphenyl)-1*H*-pyrrole (10). Mp 98 °C (yield 65%); ^1H NMR (CDCl_3) 7.38-7.35 (m, 1H), 7.08 (m, 2H), 7.01-6.92 (m, 5H), 6.14 (s, 1H), 3.53 (m, 2H), 2.52 (s broad, 8H), 2.29 (m, 3H), 2.13-2.08 (s, 3H). Anal. ($\text{C}_{24}\text{H}_{28}\text{FN}_3$) C, H, N, F.

1-(4-Fluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(2,4-dichlorophenyl)-1*H*-pyrrole (11). Mp 143 °C (yield 65%); ^1H NMR (CDCl_3) 7.36 (m, 1 H), 7.26 (m, 1 H), 7.05-6.95 (m, 5H), 6.28 (s, 1H), 3.47 (s, 2H), 2.77 (s broad, 4H), 2.70 (s broad, 4H), 2.07 (s, 3H). Anal. ($\text{C}_{22}\text{H}_{21}\text{Cl}_2\text{FN}_2\text{S}$) C, H, N, S, Cl, F.

1-(4-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(2,4-dichlorophenyl)-1*H*-pyrrole (12). Mp 130 °C (yield 65%); ^1H NMR (CDCl_3) 7.36 (m, 1 H), 7.26 (m, 1 H), 7.05-6.95 (m, 5H), 6.28 (s, 1H), 3.49 (m, 2H), 2.55 (s broad, 8H), 2.30 (m, 3H), 2.08 (s, 3H). Anal. ($\text{C}_{23}\text{H}_{24}\text{Cl}_2\text{FN}_3$) C, H, N, Cl, F.

1-(4-Fluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(2,4-difluorophenyl)-1*H*-pyrrole (13). Mp 100 °C (yield 63%); ^1H NMR (CDCl_3) 7.26 (m, 2H), 7.08-6.98 (m, 3H), 6.69-6.66 (m, 2H), 6.28 (s, 1H), 3.46 (s, 2H), 2.77 (s broad, 4H), 2.70 (s broad, 4H), 2.06 (s, 3H). Anal. ($\text{C}_{22}\text{H}_{21}\text{F}_3\text{N}_2\text{S}$) C, H, N, S, F.

1-(4-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(2,4-difluorophenyl)-1*H*-pyrrole (14). Mp 90 °C (yield 62%); ^1H NMR (CDCl_3) 7.26 (m, 2 H), 7.08-6.98 (m, 3H), 6.69-6.66 (m, 2H), 6.28 (s, 1H), 3.48 (m, 2H), 2.52 (s broad, 8H), 2.33 (m, 3H), 2.07 (s, 3H). Anal. ($\text{C}_{23}\text{H}_{24}\text{F}_3\text{N}_3$) C, H, N, F.

1-(2-Chlorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(4-fluorophenyl)-1*H*-pyrrole

(15). Oil (yield 40%); ^1H NMR (CDCl_3) 7.47-7.45 (m, 1 H), 7.32-7.21 (m, 2H), 7.21-7.19 (m, 1H),

7.05-7.01 (m, 2H), 6.83-6.79 (m, 2H), 6.31 (s, 1H), 3.48 (s, 2H), 2.78 (s broad, 4H), 2.71 (s broad, 4H), 2.02 (s, 3H). Anal. ($C_{22}H_{22}ClFN_2S$) C, H, N, S, Cl, F.

1-(2-Chlorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (16). Oil (yield 45%); 1H NMR ($CDCl_3$) 7.47-7.45 (m, 1H), 7.32-7.21 (m, 2H), 7.21-7.19 (m, 1H), 7.05-7.01 (m, 2H), 6.83-6.79 (m, 2H), 6.31 (s, 1H), 3.48 (s, 2H), 2.50 (s broad, 8H), 2.32-2.28 (m, 3H), 1.97 (s, 3H). Anal. ($C_{23}H_{25}ClFN_3$) C, H, N, Cl, F.

1-(2-Fluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (17). Oil (yield 40%); 1H NMR ($CDCl_3$) 7.36-7.25 (m, 1H), 7.10-6.87 (m, 6H), 6.29 (s, 1H), 3.47 (m, 2H), 2.77 (s broad, 4H), 2.71 (s broad, 4H), 2.03 (s, 3H). Anal. ($C_{22}H_{22}F_2N_2S$) C, H, N, S, F.

1-(2-Fluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (18). Oil (yield 40%); 1H NMR ($CDCl_3$) 7.33 (m, 1H), 7.26-7.24 (m, 1H), 7.13-7.10 (m, 2H), 7.03-7.00 (m, 2H), 6.85-6.83 (m, 2H), 6.34 (s, 1H), 3.55 (m, 2H), 2.61 (s broad, 8H), 2.35 (m, 3H), 2.04 (s, 3H). Anal. ($C_{23}H_{25}F_2N_3$) C, H, N, F.

1-(4-Methylphenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (19). Mp 132 °C (yield 40%); 1H NMR ($CDCl_3$) 7.11-7.10 (m, 2H), 7.07-7.05 (m, 2H), 6.96-6.90 (m, 4H), 6.29 (s, 1H), 3.48 (s, 2H), 2.80 (s broad, 4H), 2.72 (s broad, 4H), 2.25 (m, 3H), 2.05 (s, 3H). Anal. ($C_{23}H_{25}FN_2S$) C, H, N, S, F.

1-(4-Methylphenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (20). Mp 132 °C (yield 50%); 1H NMR ($CDCl_3$) 7.30-7.25 (m, 2H), 7.16-7.14 (m, 2H), 7.00-6.97 (m, 2H), 6.83-6.78 (m, 2H), 6.29 (s, 1H), 3.47 (s, 2H), 2.66-2.50 (s broad, 8H), 2.37 (m, 3H), 2.32-2.27 (m, 3H), 2.05 (s, 3H). Anal. ($C_{23}H_{24}F_3N_3$) C, H, N, F.

1-(3-Methylphenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (21). Mp 105 °C (yield 50%); 1H NMR ($CDCl_3$) 7.23-7.20 (m, 1H), 7.12-7.10 (m, 1H), 7.00-6.97 (m, 4H), 6.93-6.81 (m, 2H), 6.28 (m, 1H), 3.46 (s, 2H), 2.77 (s broad, 4H), 2.70 (s broad, 4H), 2.30 (m, 3H), 2.00 (s, 3H). Anal. ($C_{23}H_{25}FN_2S$) C, H, N, S, F.

1-(3-Methylphenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (22). Mp 130 °C (yield 50%); 1H NMR ($CDCl_3$) 7.23-7.20 (m, 1H), 7.12-7.10 (m, 1H), 7.00-6.81 (m, 4H), 6.79-6.77 (m, 2H), 6.28 (m, 1H), 3.48-3.47 (m, 2H), 2.34-2.29 (s broad, 8H), 2.29-2.27 (m, 6H), 2.08-2.05 (m, 3H). Anal. ($C_{23}H_{24}F_3N_3$) C, H, N, F.

1-(2-Methylphenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (24). Mp 128°C (yield 65%); 1H NMR ($CDCl_3$) 7.27-7.20 (m, 4H), 7.02-6.98 (m, 2H), 6.80-6.76 (m, 2H), 6.34 (s, 1H), 3.50-3.48 (m, 2H), 2.52-2.48 (s broad, 8H), 2.29-2.27 (m, 3H), 1.92 (s, 3H), 1.80 (s, 3H). Anal. ($C_{23}H_{24}F_3N_3$) C, H, N, F.

1-(2,4-Dichlorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (25). Mp 110 °C (yield 60%); ^1H NMR (CDCl_3) 7.49 (m, 1H), 7.26 (m, 1H), 7.14-7.12 (m, 1H), 7.02 (m, 2H), 6.88-6.84 (m, 2H), 6.30 (s, 1H), 3.47 (s, 2H), 2.77 (s broad, 4H), 2.65 (s broad, 4H), 1.97 (s, 3H). Anal. ($\text{C}_{22}\text{H}_{21}\text{Cl}_2\text{FN}_2\text{S}$) C, H, N, S, Cl, F.

1-(2,4-Dichlorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (26). Oil (yield 55%); ^1H NMR (CDCl_3) 7.48-7.47 (m, 1H), 7.36 (m, 2H), 7.12-7.10 (m, 1H), 7.03-7.01 (m, 1H), 6.87-6.83 (m, 2H), 6.32 (s, 1H), 3.43 (s, 2H), 2.48 (s broad, 8H), 2.27 (m, 3H), 2.00 (s, 3H). Anal. ($\text{C}_{23}\text{H}_{24}\text{Cl}_2\text{FN}_3$) C, H, N, Cl, F.

1-(2,4-Difluorophenyl)-2-methyl-3-(thiomorpholin-4-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (27). Oil (yield 50%); ^1H NMR (CDCl_3) 7.09-7.08 (m, 1H), 7.03-7.00 (m, 2H), 6.92-6.84 (m, 4H), 6.29 (s, 1H), 3.46 (s, 2H), 2.77 (s broad, 4H), 2.70 (s broad, 4H), 2.06 (s, 3H). Anal. ($\text{C}_{22}\text{H}_{21}\text{F}_3\text{N}_2\text{S}$) C, H, N, S, F.

1-(2,4-Difluorophenyl)-2-methyl-3-(4-methylpiperazin-1-yl)methyl-5-(4-fluorophenyl)-1H-pyrrole (28). Mp 105 °C (yield 40%); ^1H NMR (CDCl_3) 7.37-7.36 (m, 1H), 7.27-7.25 (m, 1H), 7.01-7.00 (m, 2H), 6.88-6.85 (m, 3H), 6.33-6.31 (s, 1H), 3.50-3.47 (s, 2H), 2.72-2.31 (s broad, 8H), 2.31-2.27 (m, 3H), 2.06-2.02 (s, 3H). Anal. ($\text{C}_{23}\text{H}_{24}\text{F}_3\text{N}_3$) C, H, N, F.

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Table 1. Elemental Analysis Data.

Compd	%C^a	%H^a	%N^a	%S^a	%F^a	%Cl^a
1	65.90	5.53	6.99	8.00	4.74	8.84
	65.73	5.50	7.01	8.25	4.70	8.81
2	69.42	6.33	10.56		4.77	8.71
	69.45	6.37	10.60		4.72	8.70
3	68.72	5.77	7.29	8.34	9.88	
	68.69	5.63	7.20	8.37	10.00	
4	72.42	6.61	11.02		9.96	
	72.38	6.60	10.99		9.95	
5	72.60	6.62	7.36	8.43	4.90	
	72.55	6.42	7.26	8.36	5.00	
6	76.36	7.48	11.13		5.03	
	76.34	7.18	11.02		5.09	
7	72.60	6.62	7.36	8.43	4.90	
	72.43	6.46	7.39	8.22	5.05	
8	76.36	7.48	11.13		5.03	
	76.67	7.54	11.22		4.90	
9	72.60	6.62	7.36	8.43	4.90	
	72.57	6.56	7.13	8.58	4.65	
10	76.36	7.48	11.13		5.03	
	76.01	7.34	11.27		5.34	
11	60.69	4.86	6.43	7.36	4.36	16.29
	61.00	4.97	6.42	7.43	4.00	16.45
12	63.89	5.59	9.72		4.39	16.40
	63.77	5.55	9.65		4.22	16.54
13	65.65	5.26	6.96	7.97	14.16	
	65.68	5.39	6.88	7.93	14.45	
14	69.16	6.06	10.52		14.27	
	68.99	5.99	10.23		14.00	
15	65.90	5.53	6.99	8.00	4.74	8.84
	65.87	5.55	6.91	8.05	4.79	8.76
16	69.42	6.33	10.56		4.77	8.71
	69.34	6.01	10.54		4.89	8.65
17	68.72	5.77	7.29	8.34	9.88	
	68.69	5.76	7.33	8.39	10.05	
18	72.42	6.61	11.02		9.96	
	72.03	6.86	11.45		9.76	
19	72.60	6.62	7.36	8.43	4.90	
	72.48	7.00	7.51	8.45	4.77	
20	76.36	7.48	11.13		5.03	
	76.69	7.70	11.15		4.87	
21	72.60	6.62	7.36	8.43	4.90	
	72.65	6.43	7.31	8.66	5.04	
22	76.36	7.48	11.13		5.03	
	76.77	7.43	11.21		5.02	
23	72.60	6.62	7.36	8.43	4.90	
	72.72	6.32	7.44	8.87	4.90	

24	76.36	7.48	11.13	5.03	
	76.37	7.55	11.24	5.33	
25	60.69	4.86	6.43	7.36	4.36 16.29
	61.00	5.06	6.38	7.34	4.22 16.38
26	69.42	6.33	10.56		4.77 8.71
	69.11	6.12	10.59		4.72 8.70
27	65.65	5.26	6.96	7.97	14.16
	65.34	5.21	6.98	8.11	14.32
28	69.16	6.06	10.52		14.27
	68.99	6.00	10.41		14.11

^aCalculated and found (respectively) percent values.