Supporting Information

**Enantioselective Organocatalytic Michael Addition Reactions between *N*-
Heterocycles and Nitroolefins**

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General Information: Commercial reagents were used as received, unless otherwise stated. Merck 60 silica gel was used for chromatography, and Whatman silica gel plates with fluorescence F₂₅₄ indicator were used for thin-layer chromatography (TLC) analysis. ¹H and ¹³C NMR spectra were recorded on Bruker Advance 500, and tetramethylsilane (TMS) was used as a reference. Data for ¹H are reported as follows: chemical shift (ppm), and multiplicity (s = singlet, d = doublet, t = triplet, q = quartet, m = multiplet).

Typical Procedure for *N*-Heterocycles to Nitro-Olefins: Catalyst **II** (6 mg, 0.019 mmol) was added to a vial containing benzotriazole (**1a**) (24 mg, 0.206 mmol) and *trans*-β-nitrostyrene (**2a**) (28 mg, 0.187 mmol) in Et₂O (1 mL) at −70 °C. After 24 h of stirring, TLC analysis indicated completion of the reaction. The reaction mixture was concentrated *in vacuo*. The residue was purified by flash silica gel chromatography (ethyl acetate/hexane=1:10 to 1:6) to afford 44 mg (87% yield) of the adduct as a clear oil.

1-(2-Nitro-1-phenylethyl)-1H-benzotriazole¹ (Table 3, entry 1): The title compound was prepared according to the typical procedure, as described above in 87% yield. HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): *t*_{minor} = 20.6 min, *t*_{major} = 24.7 min, ee = 70%; [α]_D²⁵ (major) = −28.5 (*c* = 1.2 in CHCl₃).

1-(2-Nitro-1-(4-methylphenyl)ethyl)-1H-benzotriazole (Table 3, entry 2): The title compound was prepared according to the typical procedure, as described above in 70% yield. ¹H NMR (500 MHz, CDCl₃, TMS): δ = 8.06 (d, ³*J*(H,H) = 8.5 Hz, 1H; Ar), 7.46-7.35 (m, 3H; Ar), 7.23 (d, ³*J*(H,H) = 8.0 Hz, 2H; Ar), 7.17 (d, ³*J*(H,H) = 8.0 Hz, 2H; Ar), 6.54 (dd, ³*J*(H,H) = 10.0 Hz, ³*J*(H,H) = 5.0 Hz, 1H; CH₂), 5.91 (dd, ³*J*(H,H) = 14.5 Hz, ³*J*(H,H) = 9.5 Hz, 1H; CH₂), 5.12 (dd, ³*J*(H,H) = 14.5 Hz, ³*J*(H,H) = 5.0 Hz, 1H; CH), 2.32 (s, 3H; CH₃); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 146.2, 139.9, 132.6, 131.0, 130.2, 127.9, 126.8, 124.5, 120.2, 109.4, 76.7, 59.6, 21.1; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): *t*_{minor} = 20.4 min, *t*_{major} = 22.0 min, ee = 72%; [α]_D²⁵ (major) = −34.7 (*c* = 1.5 in CHCl₃).

1-[1-(4-Chlorophenyl)-2-nitroethyl]-1H-benzotriazole (Table 3, entry 3): The title compound was prepared according to the typical procedure, as described above in 74% yield. ¹H NMR (500 MHz, CDCl₃, TMS): δ = 8.08 (d, ³*J*(H,H) = 8.5 Hz, 1H; Ar), 7.60-7.24 (m, 7H; Ar), 6.57 (dd, ³*J*(H,H) = 9.0

Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH₂), 5.90 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 9.0$ Hz, 1H; CH₂), 5.15 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 146.2, 136.0, 132.6, 132.5, 129.8, 128.3, 128.2, 124.7, 120.3, 109.1, 76.5, 59.0; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): t_{minor} = 22.8 min, t_{major} = 25.5 min, ee = 70%; [α]_D²⁵ (major) = −12.5 (*c* = 1.0 in CHCl₃).

1-[1-(4-Benzyloxy-phenyl)-2-nitro-ethyl]-1H-benzotriazole (Table 3, entry 4): The title compound was prepared according to the typical procedure, as described above in 73% yield. ¹H NMR (500 MHz, CDCl₃, TMS): δ = 8.05 (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar), 7.50-7.22 (m, 10H; Ar), 6.94 (d, $^3J(\text{H,H}) = 8.5$ Hz, 2H; Ar), 6.52 (dd, $^3J(\text{H,H}) = 10.0$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH₂), 5.87 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 5.13 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH), 5.01 (s, 2H; CH₂); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 159.7, 146.2, 136.3, 132.6, 128.6, 128.3, 128.1, 127.9, 127.4, 126.1, 124.5, 120.2, 115.7, 109.4, 70.1, 59.3; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): t_{minor} = 34.7 in, t_{major} = 37.6, ee = 78%; [α]_D²⁵ (major) = −29.5 (*c* = 0.8 in CHCl₃).

1-[1-(2-Benzyloxy-phenyl)-2-nitro-ethyl]-1H-benzotriazole (Table 3, entry 5): The title compound was prepared according to the typical procedure, as described above in 87% yield. ¹H NMR (500 MHz, CDCl₃, TMS): δ = 8.04 (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar), 7.46-7.28 (m, 9H; Ar), 7.11 (dd, $^3J(\text{H,H}) = 10.0$ Hz, $^3J(\text{H,H}) = 4.0$ Hz, 1H; CH₂), 7.08-6.85 (m, 3H; Ar), 5.86 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 10.0$ Hz, 1H; CH₂), 5.21 (s, 2H; CH₂), 5.07 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 4.0$ Hz, 1H; CH); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 154.9, 146.0, 135.9, 132.9, 130.8, 128.9, 128.5, 127.7, 127.5, 124.3, 122.6, 121.7, 119.9, 112.6, 109.6, 75.2, 70.8, 53.5; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): t_{minor} = 20.3 min, t_{major} = 18.6 min, ee = 92%; [α]_D²⁵ (major) = −36.3 (*c* = 1.0 in CHCl₃).

1-[1-(2,3-Dimethoxy-phenyl)-2-nitro-ethyl]-1H-benzotriazole (Table 3, entry 6): The title compound was prepared according to the typical procedure, as described above in 77% yield. ¹H NMR (500 MHz, CDCl₃, TMS): δ = 8.06 (d, ³J(H,H) = 8.5 Hz, 1H; Ar), 7.53 (d, ³J(H,H) = 8.5 Hz, 1H; Ar), 7.50-7.42 (m, 1H; Ar), 7.40-7.33 (m, 1H; Ar), 7.03 (dd, ³J(H,H) = 9.5 Hz, ³J(H,H) = 4.5 Hz, 1H; CH₂), 6.99 (d, ³J(H,H) = 8.0 Hz, 1H; Ar), 6.90 (d, ³J(H,H) = 8.5 Hz, 1H; Ar), 6.71 (d, ³J(H,H) = 8.0 Hz, 1H; Ar), 5.91 (dd, ³J(H,H) = 14.5 Hz, ³J(H,H) = 9.5 Hz, 1H; CH₂), 5.15 (dd, ³J(H,H) = 14.5 Hz, ³J(H,H) = 5.0 Hz, 1H; CH), 3.96 (s, 3H; OCH₃), 3.87 (s, 3H; OCH₃); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 145.6, 139.0, 125.7, 120.8, 120.2, 117.7, 117.4, 113.0, 111.9, 106.5, 102.5, 68.7, 54.2, 48.8, 46.7; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): t_{minor} = 18.5 min, t_{major} = 23.4 min, ee = 80%; [α]_D²⁵ (major) = -27.2 (c = 1.6 in CHCl₃).

4-Nitro-benzoic acid 2-(1-benzotriazol-1-yl-2-nitro-ethyl)-phenyl ester (Table 3, entry 7): The title compound was prepared according to the typical procedure, as described above in 73% yield. ¹H NMR (500 MHz, CDCl₃, TMS): δ = 8.42-8.37 (m, 4H; Ar), 8.07 (d, ³J(H,H) = 8.5 Hz, 1H; Ar), 8.97-8.88 (m, 1H; Ar), 7.52-7.26 (m, 6H; Ar), 6.79 (dd, ³J(H,H) = 9.5 Hz, ³J(H,H) = 4.0 Hz, 1H; CH₂), 5.99 (dd, ³J(H,H) = 14.5 Hz, ³J(H,H) = 10.0 Hz, 1H; CH₂), 5.18 (dd, ³J(H,H) = 14.5 Hz, ³J(H,H) = 4.0 Hz, 1H; CH); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 164.4, 151.3, 147.8, 146.2, 133.5, 132.6, 131.5, 131.3, 128.4, 127.9, 126.5, 126.1, 124.8, 124.1, 123.3, 120.3, 109.2, 75.6, 54.6; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): t_{minor} = 49.2 min, t_{major} = 55.2 min, ee = 84%; [α]_D²⁵ (major) = -38.1 (c = 1.0 in CHCl₃).

Benzoic acid 2-(1-benzotriazol-1-yl-2-nitro-ethyl)-phenyl ester (Table 3, entry 8): The title compound was prepared according the typical procedure, as described above in 75% yield. ¹H NMR (500 MHz, CDCl₃, TMS): δ = 8.32 (d, ³J(H,H) = 8.0 Hz, 1H; Ar), 8.09 (d, ³J(H,H) = 8.5 Hz, 1H; Ar), 8.85-7.19 (m, 9H; Ar), 6.79 (dd, ³J(H,H) = 9.5 Hz, ³J(H,H) = 4.0 Hz, 1H; CH₂), 5.99 (dd, ³J(H,H) = 15.0 Hz, ³J(H,H) = 10.0 Hz, 1H; CH₂), 5.14 (dd, ³J(H,H) = 15.0 Hz, ³J(H,H) = 4.0 Hz, 1H; CH); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 165.2, 148.0, 146.2, 134.6, 132.7, 131.0, 130.4, 129.0, 128.1, 128.0, 127.4, 126.8, 124.6, 123.3, 120.2, 109.3, 75.5, 54.0; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): t_{minor} = 18.9 min, t_{major} = 21.4 min, ee = 94 %; [α]_D²⁵

(major) = -33.5 ($c = 1.5$ in CHCl_3).

1-(1-Biphenyl-2-yl-2-nitro-ethyl)-1H-benzotriazole (Table 3, entry 9): The title compound was prepared according to the typical procedure, as described above in 90% yield. ^1H NMR (500 MHz, CDCl_3 , TMS): $\delta = 8.00$ (d, $^3J(\text{H,H}) = 8.0$ Hz, 1H; Ar), 7.61-7.45 (m, 4H; Ar), 7.45-7.20 (m, 7H; Ar), 6.86 (d, $^3J(\text{H,H}) = 8.0$ Hz, 1H; Ar), 6.77 (dd, $^3J(\text{H,H}) = 10.0$ Hz, $^3J(\text{H,H}) = 4.0$ Hz, 1H; CH_2), 5.91 (dd, $^3J(\text{H,H}) = 15.0$ Hz, $^3J(\text{H,H}) = 10.5$ Hz, 1H; CH_2), 5.04 (dd, $^3J(\text{H,H}) = 15.0$ Hz, $^3J(\text{H,H}) = 4.0$ Hz, 1H; CH_2); ^{13}C NMR (125 MHz, CDCl_3 , TMS): $\delta = 145.9, 141.5, 139.3, 132.6, 131.4, 130.7, 129.3, 129.1, 129.0, 128.7, 128.4, 127.7, 127.4, 124.3, 120.0, 109.2, 76.2, 55.8$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 14.7$ min, $t_{\text{major}} = 15.4$ min, ee = 86 %; $[\alpha]_D^{25}$ (major) = -18.1 ($c = 1.0$ in CHCl_3).

1-{1-[2-(4-Chloro-phenylsulfanyl)-phenyl]-2-nitro-ethyl}-1H-benzotriazole (Table 3, entry 10): The title compound was prepared according to the typical procedure, as described above in 83% yield. ^1H NMR (500 MHz, CDCl_3 , TMS): $\delta = 8.03$ (d, $^3J(\text{H,H}) = 8.0$ Hz, 1H; Ar), 7.57 (d, $^3J(\text{H,H}) = 7.5$ Hz, 1H; Ar), 7.40-7.11 (m, 10H; Ar), 7.06 (d, $^3J(\text{H,H}) = 7.5$ Hz, 1H; CH_2), 5.86 (dd, $^3J(\text{H,H}) = 15.0$ Hz, $^3J(\text{H,H}) = 5.5$ Hz, 1H; CH_2), 4.87 (dd, $^3J(\text{H,H}) = 15.0$ Hz, $^3J(\text{H,H}) = 3.5$ Hz, 1H; CH); ^{13}C NMR (125 MHz, CDCl_3 , TMS): $\delta = 145.9, 136.1, 135.7, 133.7, 132.8, 132.3, 131.1, 130.5, 130.2, 129.8, 128.5, 127.9, 124.5, 120.0, 109.2, 75.5, 56.3$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 21.0$ min, $t_{\text{major}} = 29.7$ min, ee = 90%; $[\alpha]_D^{25}$ (major) = -25.8 ($c = 1.9$ in CHCl_3).

1-(1-Naphthalen-2-yl-2-nitro-ethyl)-1H-benzotriazole (Table 3, entry 11): The title compound was prepared according to the typical procedure, as described above in 64% yield. ^1H NMR (500 MHz, CDCl_3 , TMS): $\delta = 8.07$ (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar), 7.88-7.75 (m, 4H; Ar), 7.53-7.46 (m, 2H; Ar), 7.46-7.30 (m, 4H; Ar), 6.74 (dd, $^3J(\text{H,H}) = 9.5$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH_2), 6.02 (dd, $^3J(\text{H,H}) =$

15.0 Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 5.23 (dd, $^3J(\text{H,H}) = 15.0$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH),; ^{13}C NMR (125 MHz, CDCl₃, TMS): $\delta = 146.3, 133.5, 133.0, 132.7, 131.2, 129.8, 128.1, 128.0, 127.8, 127.3, 127.1, 126.7, 124.5, 123.4, 120.2, 109.4, 76.6, 60.0$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 25.3$ min, $t_{\text{major}} = 27.2$ min, ee = 67%; $[\alpha]^{25}_{\text{D}}$ (major) = -10.7 ($c = 1.5$ in CHCl₃).

1-(2-Nitro-1-thiophen-2-yl-ethyl)-1H-benzotriazole (Table 3, entry 12): The title compound was prepared according to the typical procedure, as described above in 79% yield. ^1H NMR (500 MHz, CDCl₃, TMS): $\delta = 8.07$ (d, $^3J(\text{H,H}) = 8.0$ Hz, 1H; Ar), 7.60-7.46 (m, 2H; Ar), 7.45-7.38 (m, 1H; Ar), 7.37-7.31 (m, 1H; Ar), 7.22-7.14 (m, 1H; Ar), 7.04-6.96 (m, 1H; Ar), 6.89 (dd, $^3J(\text{H,H}) = 10.0$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH₂), 5.89 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 5.25 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH); ^{13}C NMR (125 MHz, CDCl₃, TMS): $\delta = 146.0, 135.8, 132.5, 128.2, 127.4, 124.6, 120.3, 109.2, 76.9, 55.1$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 21.9$ min, $t_{\text{major}} = 29.6$ min, ee = 80 %; $[\alpha]^{25}_{\text{D}}$ (major) = -48.3 ($c = 0.9$ in CHCl₃).

2-(1-Benzotriazol-1-yl-2-nitro-ethyl)-pyrrole-1-carboxylic acid benzyl ester (Table 3, entry 13): The title compound was prepared according to the typical procedure, as described above in 80% yield. ^1H NMR (500 MHz, CDCl₃, TMS): $\delta = 8.07$ (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar), 7.60-7.29 (m, 11H; Ar), 6.19-6.10 (m, 1H; CH₂), 5.72 (dd, $^3J(\text{H,H}) = 15.0$ Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 5.40 (d, $^3J(\text{H,H}) = 2.0$ Hz, 2H; OCH₂), 5.22 (dd, $^3J(\text{H,H}) = 14.5$ Hz, $^3J(\text{H,H}) = 4.0$ Hz, 1H; CH); ^{13}C NMR (125 MHz, CDCl₃, TMS): $\delta = 150.5, 145.8, 134.0, 132.9, 129.1, 128.9, 128.7, 128.0, 127.5, 124.4, 123.0, 120.0, 115.8, 111.7, 109.7, 75.6, 69.8, 52.9$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 32.7$ min, $t_{\text{major}} = 24.6$ min, ee = 94%; $[\alpha]^{25}_{\text{D}}$ (major) = -55.0 ($c = 1.0$ in CHCl₃).

1-[2-Nitro-1-(1-trityl-1H-imidazol-4-yl)-ethyl]-1H-benzotriazole (Table 3, entry 14): The title compound was prepared according to the typical procedure, as described above in 77% yield. ^1H NMR (500 MHz, CDCl₃, TMS): $\delta = 8.04$ (d, $^3J(\text{H,H}) = 8.0$ Hz, 1H; Ar), 7.57 (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar),

7.50-7.20 (m, 13H; Ar), 7.02 (d, $^3J(\text{H,H}) = 7.5$ Hz, 1H; Ar), 6.80 (dd, $^3J(\text{H,H}) = 9.5$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH₂), 6.76 (s, 1H; Ar), 5.62 (dd, $^3J(\text{H,H}) = 14.0$ Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 5.42 (dd, $^3J(\text{H,H}) = 14.0$ Hz, $^3J(\text{H,H}) = 5.0$ Hz, 1H; CH); ¹³C NMR (125 MHz, CDCl₃, TMS): $\delta = 146.1, 141.7, 139.4, 134.4, 132.4, 129.6, 128.3, 128.1, 127.7, 124.3, 120.6, 120.2, 110.0, 75.9, 75.8, 55.2$; HPLC (Chiralpak AD, *i*-propanol/hexane = 20/80, flow rate 1.0 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 17.8$ min, $t_{\text{major}} = 35.7$ min, ee = 81%; $[\alpha]^{25}_{\text{D}}$ (major) = -68.2 ($c = 0.7$ in CHCl₃).

1-(1-Nitromethyl-3-phenyl-propyl)-1H-benzotriazole (Table 3, entry 15): The title compound was prepared according the typical procedure, as described above in 83% yield. ¹H NMR (500 MHz, CDCl₃, TMS): $\delta = 8.07$ (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar), 7.54-7.46 (m, 1H; Ar), 7.44-7.36 (m, 2H; Ar), 7.29-7.17 (m, 3H; Ar), 7.02-6.95 (m, 2H; Ar), 5.51-5.40 (m, 1H; CH₂), 5.22 (dd, $^3J(\text{H,H}) = 14.0$ Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 4.87 (dd, $^3J(\text{H,H}) = 14.0$ Hz, $^3J(\text{H,H}) = 4.0$ Hz, 1H; CH), 2.80-2.69 (m, 1H; CH₂), 2.58-2.47 (m, 1H; CH₂), 2.46-2.32 (m, 2H; CH₂); ¹³C NMR (125 MHz, CDCl₃, TMS): $\delta = 145.6, 138.8, 133.4, 128.6, 128.3, 127.9, 126.6, 124.4, 120.1, 109.2, 77.5, 55.2, 33.7, 31.3$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 19.4$ min, $t_{\text{major}} = 21.9$ min, ee = 57%; $[\alpha]^{25}_{\text{D}}$ (major) = -12.5 ($c = 1.3$ in CHCl₃).

1-(3-Methyl-1-nitromethyl-butyl)-1H-benzotriazole (Table 3, entry 16): The title compound was prepared according the typical procedure, as described above in 67% yield. ¹H NMR (500 MHz, CDCl₃, TMS): $\delta = 8.07$ (d, $^3J(\text{H,H}) = 8.0$ Hz, 1H; Ar), 7.60 (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar), 7.58-7.51 (m, 1H; Ar), 7.47-7.37 (m, 1H; Ar), 5.69-5.57 (m, 1H; CH₂), 5.23 (dd, $^3J(\text{H,H}) = 14.0$ Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 4.88 (dd, $^3J(\text{H,H}) = 14.0$ Hz, $^3J(\text{H,H}) = 4.0$ Hz, 1H; CH), 2.45-2.33 (m, 1H; CH), 1.86-1.74 (m, 1H; CH₂), 1.27-1.15 (m, 1H; CH₂), 0.94 (d, $^3J(\text{H,H}) = 6.5$ Hz, 3H; CH₃), 0.87 (d, $^3J(\text{H,H}) = 6.5$ Hz, 3H; CH₃); ¹³C NMR (125 MHz, CDCl₃, TMS): $\delta = 145.6, 133.4, 128.1, 124.4, 120.2, 108.9, 77.9, 54.6, 41.1, 24.4, 22.7, 21.4$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254$ nm): $t_{\text{minor}} = 11.9$ min, $t_{\text{major}} = 12.8$ min, ee = 68%; $[\alpha]^{25}_{\text{D}}$ (major) = -18.7 ($c = 0.8$ in CHCl₃).

1-(1-Nitromethyl-hexyl)-1H-benzotriazole (Table 3, entry 17): The title compound was prepared according the typical procedure, as described above in 78% yield. ¹H NMR (500 MHz, CDCl₃, TMS): $\delta = 8.07$ (d, $^3J(\text{H,H}) = 8.5$ Hz, 1H; Ar), 7.65-7.52 (m, 2H; Ar), 7.48-7.37 (m, 1H; Ar), 5.58-5.46 (m, 1H; CH₂), 5.29 (dd, $^3J(\text{H,H}) = 14.0$ Hz, $^3J(\text{H,H}) = 9.5$ Hz, 1H; CH₂), 4.92 (dd, $^3J(\text{H,H}) = 14.0$ Hz,

$^3J(\text{H,H}) = 4.0 \text{ Hz}$, 1H; CH), 2.38-2.23 (m, 1H; CH), 2.11-1.97 (m, 1H; CH₂), 1.41-1.14 (m, 5H; CH₂), 1.13-1.00 (m, 1H; CH₂), 0.80 (t, $^3J(\text{H,H}) = 7.0 \text{ Hz}$, 3H; CH₃); ^{13}C NMR (125 MHz, CDCl₃, TMS): $\delta = 145.6, 133.4, 128.0, 124.4, 120.2, 108.9, 77.4, 56.3, 32.6, 30.9, 25.2, 22.1, 13.7$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 20/80, flow rate 0.5 mL/min, $\lambda = 254 \text{ nm}$): $t_{\text{minor}} = 21.2 \text{ min}$, $t_{\text{major}} = 25.2 \text{ min}$, ee = 65%; $[\alpha]_D^{25}$ (major) = -13.3 ($c = 1.5$ in CHCl₃).

1-(1-Nitromethyl-heptyl)-1H-benzotriazole (Table 3, entry 18): The title compound was prepared according the typical procedure, as described above in 76% yield. ^1H NMR (500 MHz, CDCl₃, TMS): $\delta = 8.07$ (d, $^3J(\text{H,H}) = 8.5 \text{ Hz}$, 1H; Ar), 7.65-7.48 (m, 2H; Ar), 7.47-7.36 (m, 1H; Ar), 5.58-5.45 (m, 1H; CH₂), 5.29 (dd, $^3J(\text{H,H}) = 14.0 \text{ Hz}$, $^3J(\text{H,H}) = 9.5 \text{ Hz}$, 1H; CH₂), 4.92 (dd, $^3J(\text{H,H}) = 14.0 \text{ Hz}$, $^3J(\text{H,H}) = 4.0 \text{ Hz}$, 1H; CH), 2.40-2.26 (m, 1H; CH), 2.11-1.98 (m, 1H; CH₂), 1.45-1.12 (m, 7H; CH₂), 1.11-1.00 (m, 1H; CH₂), 0.81 (t, $^3J(\text{H,H}) = 7.0 \text{ Hz}$, 3H; CH₃); ^{13}C NMR (125 MHz, CDCl₃, TMS): $\delta = 145.6, 133.5, 128.0, 124.4, 120.2, 108.9, 77.4, 56.4, 32.6, 31.2, 28.4, 25.5, 22.3, 13.8$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 20/80, flow rate 0.5 mL/min, $\lambda = 254 \text{ nm}$): $t_{\text{minor}} = 19.2 \text{ min}$, $t_{\text{major}} = 22.2 \text{ min}$, ee = 64%; $[\alpha]_D^{25}$ (major) = -15.6 ($c = 1.2$ in CHCl₃).

1-[1-(2-Benzyloxy-phenyl)-2-nitro-ethyl]-1H-[1,2,3]triazole (3s) (Scheme 1): The title compound was prepared according the typical procedure, as described above in 65% yield. ^1H NMR (500 MHz, CDCl₃, TMS): $\delta = 7.72$ (s, 1H; Ar), 7.53 (s, 1H; Ar), 7.47-7.32 (m, 6H; Ar), 7.09-7.02 (m, 1H; Ar), 7.01-6.92 (m, 2H; Ar), 6.80 (dd, $^3J(\text{H,H}) = 10.0 \text{ Hz}$, $^3J(\text{H,H}) = 4.0 \text{ Hz}$, 1H; CH₂), 5.68 (dd, $^3J(\text{H,H}) = 15.0 \text{ Hz}$, $^3J(\text{H,H}) = 10.0 \text{ Hz}$, 1H; CH), 5.19 (d, $^3J(\text{H,H}) = 12.0 \text{ Hz}$, 1H; OCH₂), 5.15 (d, $^3J(\text{H,H}) = 12.0 \text{ Hz}$, 1H; OCH₂), 4.98 (dd, $^3J(\text{H,H}) = 15.0 \text{ Hz}$, $^3J(\text{H,H}) = 4.0 \text{ Hz}$, 1H; CH); ^{13}C NMR (125 MHz, CDCl₃, TMS): $\delta = 154.9, 135.8, 134.0, 131.0, 128.9, 128.5, 127.8, 127.3, 124.4, 122.7, 121.8, 112.6, 75.1, 70.7, 56.2$; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, $\lambda = 254 \text{ nm}$): $t_{\text{minor}} = 27.9 \text{ min}$, $t_{\text{major}} = 49.4 \text{ min}$, ee = 84%; $[\alpha]_D^{25}$ (major) = -16.9 ($c = 1.1$ in CHCl₃).

2-[1-(2-Benzyloxy-phenyl)-2-nitro-ethyl]-5-phenyl-2H-tetrazole (3t) (Scheme 1): The title compound was prepared according the typical procedure, as described above in 76% yield. ^1H NMR

(500 MHz, CDCl₃, TMS): δ = 8.20-8.13 (m, 2H; Ar), 7.54-7.30 (m, 9H; Ar), 7.24 (dd, $^3J(\text{H,H})$ = 10.5 Hz, $^3J(\text{H,H})$ = 3.5 Hz, 1H; CH₂), 7.05 (d, $^3J(\text{H,H})$ = 8.5 Hz, 1H; Ar), 6.95 (d, $^3J(\text{H,H})$ = 4.5 Hz, 1H; Ar), 5.67 (dd, $^3J(\text{H,H})$ = 15.0 Hz, $^3J(\text{H,H})$ = 10.5 Hz, 1H; CH₂), 5.19 (s, 2H; OCH₂), 4.99 (dd, $^3J(\text{H,H})$ = 15.0 Hz, $^3J(\text{H,H})$ = 3.5 Hz, 1H; CH); ¹³C NMR (125 MHz, CDCl₃, TMS): δ = 165.3, 155.0, 135.8, 131.1, 130.6, 128.9, 128.8, 128.4, 127.6, 127.2, 127.0, 121.7, 112.7, 74.7, 70.1, 59.5; HPLC (Chiralpak AS-H, *i*-propanol/hexane = 40/60, flow rate 0.5 mL/min, λ = 254 nm): t_{minor} = 31.6 min, t_{major} = 35.1 min, ee = 86%; $[\alpha]_{\text{D}}^{25}$ (major) = -28.6 (c = 1.2 in CHCl₃).

Reference

(1) Katritzky, A. R.; Pernak, J.; Fan, W. Q.; Saczewski, F. *J. Org. Chem.* **1991**, *56*, 4439.

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WeiWang\jwk89el.dat
 Date Acquired: 8/20/2005 2:30:34 PM Date Printed: 12/07/2005 12:54:36 PM
 Sample ID: jwk89e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	20.580	20273376	15.180	
2	24.740	113452858	84.840	
Totals		133725434	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw5.met
 Data File: C:\EZStart\Projects\WeiWang\jw12el.dat
 Date Acquired: 8/24/2005 3:04:38 PM Date Printed: 12/07/2005 01:04:03 PM
 Sample ID: jw12e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	20.360	19059552	14.103	
2	22.010	116081124	85.897	
Totals		135140676	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WeiWang\jwk78el.dat
 Date Acquired: 8/17/2005 1:59:11 PM Date Printed: 12/07/2005 01:08:26 PM
 Sample ID: jwk78e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	22.800	32583708	13.394	
2	25.450	179077136	84.606	
Totals		211660844	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WeiWang\jwj59el.dat
 Date Acquired: 6/30/2005 10:41:42 AM Date Printed: 12/07/2005 01:01:19 PM
 Sample ID: jwj59e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	20.430	57707238	50.981	
2	25.350	55530345	49.039	
Totals		113237583	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WeiWang\jwj72el.dat
 Date Acquired: 7/12/2005 5:26:18 PM Date Printed: 12/07/2005 01:06:33 PM
 Sample ID: jwj72e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	20.280	43767014	48.637	
2	22.350	46183349	51.343	
Totals		89950363	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WeiWang\jwj60el.dat
 Date Acquired: 6/30/2005 11:27:25 AM Date Printed: 12/07/2005 01:11:06 PM
 Sample ID: jwj60e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	22.980	30982167	49.598	
2	26.350	31338934	50.302	
Totals		62301101	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.net
 Data File: C:\EZStart\Projects\WeiWang\jwk77a1.dat
 Date Acquired: 8/23/2005 7:49:04 AM Date Printed: 12/07/2005 01:12:48 PM
 Sample ID: jwk77a

SPD-10Avp
Chl-254nm Results

PK #	RT	Area	Area %
1	34.730	114810248	11.443
2	37.570	885557	88.557
Totals		129645571	100.000

Method Name: C:\EZStart\Projects\Default\Method\jw6.net
 Data File: C:\EZStart\Projects\WeiWang\jwk76e2.dat
 Date Acquired: 8/15/2005 9:32:07 PM Date Printed: 12/07/2005 01:13:23 PM
 Sample ID: jwk76e

SPD-10Avp
Chl-254nm Results

PK #	RT	Area	Area %
1	35.330	43014623	48.463
2	38.540	45742335	51.537
Totals		88756958	100.000

Method Name: C:\EZStart\Projects\Default\Method\jw6.net
 Data File: C:\EZStart\Projects\WeiWang\jwk93e1.dat
 Date Acquired: 8/23/2005 11:51:40 AM Date Printed: 12/07/2005 01:15:38 PM
 Sample ID: jwk93e

SPD-10Avp
Chl-254nm Results

PK #	RT	Area	Area %
1	18.370	103564572	93.904
2	20.330	4508649	4.096
Totals		110073321	100.000

Method Name: C:\EZStart\Projects\Default\Method\jw6.net
 Data File: C:\EZStart\Projects\WeiWang\jwl1e1.dat
 Date Acquired: 8/22/2005 10:58:23 AM Date Printed: 12/07/2005 01:19:40 PM
 Sample ID: jwl1e

SPD-10Avp
Chl-254nm Results

PK #	RT	Area	Area %
1	18.360	24503542	48.493
2	20.080	26028908	51.507
Totals		50532450	100.000

Method Name: C:\EZStart\Projects\Default\Method\jw6.net
 Data File: C:\EZStart\Projects\WeiWang\jwl3e1.dat
 Date Acquired: 8/23/2005 10:18:16 PM Date Printed: 12/07/2005 01:27:30 PM
 Sample ID: jwl3e

SPD-10Avp
Chl-254nm Results

PK #	RT	Area	Area %
1	18.470	18004444	10.251
2	23.430	157638475	89.749
Totals		175642919	100.000

Method Name: C:\EZStart\Projects\Default\Method\jw6.net
 Data File: C:\EZStart\Projects\WeiWang\jw75e1.dat
 Date Acquired: 7/12/2005 9:35:06 PM Date Printed: 12/07/2005 01:32:06 PM
 Sample ID: jw75e

SPD-10Avp
Chl-254nm Results

PK #	RT	Area	Area %
1	18.660	37042038	30.010
2	24.910	37027588	49.990
Totals		74069626	100.000

Method Name: C:\ZSstart\Projects\Default\Method\jw6.met
 Data File: C:\ZSstart\Projects\WeiWang\jw137e3.dat
 Date Acquired: 9/14/2005 11:48:09 AM Date Printed: 12/07/2005 01:34:23 PM
 Sample ID: jw137e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
2	49.180	18983107	5.794	
3	55.180	207450832	74.242	
Totals		226433939	81.036	

Method Name: C:\ZSstart\Projects\Default\Method\jw6.met
 Data File: C:\ZSstart\Projects\WeiWang\jw139e1.dat
 Date Acquired: 9/13/2005 12:51:32 PM Date Printed: 12/07/2005 01:36:14 PM
 Sample ID: jw139e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	18.880	2978357	2.966	
2	21.370	97422974	97.034	
Totals		100401331	100.000	

Method Name: C:\ZSstart\Projects\Default\Method\jw6.met
 Data File: C:\ZSstart\Projects\WeiWang\jw135e1.dat
 Date Acquired: 9/23/2005 3:02:32 PM Date Printed: 12/07/2005 01:39:18 PM
 Sample ID: jw135e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	14.730	10410200	7.383	
2	15.420	130584832	92.617	
Totals		140995032	100.000	

Method Name: C:\ZSstart\Projects\Default\Method\jw6.met
 Data File: C:\ZSstart\Projects\WeiWang\jw136e3.dat
 Date Acquired: 9/14/2005 12:11:04 AM Date Printed: 12/07/2005 01:35:24 PM
 Sample ID: jw136e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	47.610	38640900	41.473	
2	54.920	54531094	58.527	
Totals		93171994	100.000	

Method Name: C:\ZSstart\Projects\Default\Method\jw6.met
 Data File: C:\ZSstart\Projects\WeiWang\jw138e1.dat
 Date Acquired: 9/13/2005 12:04:30 PM Date Printed: 12/07/2005 01:37:03 PM
 Sample ID: jw138e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	18.810	39528844	42.211	
2	21.380	54116623	57.789	
Totals		93645467	100.000	

Method Name: C:\ZSstart\Projects\Default\Method\jw6.met
 Data File: C:\ZSstart\Projects\WeiWang\jw156e1.dat
 Date Acquired: 9/23/2005 2:14:29 PM Date Printed: 12/07/2005 01:41:13 PM
 Sample ID: jw156e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	14.560	89253687	47.556	
2	15.370	98428482	52.444	
Totals		187682169	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WaiWang\jw157e1.dat
 Date Acquired: 9/23/2005 5:22:28 PM Date Printed: 12/07/2005 01:45:23 PM
 Sample ID: jw157e

SPD-10Avp Ch1-254nm Results				
Pk #	RT	Area	Area %	
1	20.990	11754939	5.370	
2	29.660	207142364	94.630	
Totals		218897323	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WaiWang\jw158e2.dat
 Date Acquired: 9/23/2005 4:46:30 PM Date Printed: 12/07/2005 01:48:34 PM
 Sample ID: jw158e

SPD-10Avp Ch1-254nm Results				
Pk #	RT	Area	Area %	
1	20.950	135619936	49.756	
2	29.660	136969317	50.244	
Totals		272609313	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WaiWang\jw129e1.dat
 Date Acquired: 9/13/2005 2:37:50 PM Date Printed: 12/07/2005 01:52:05 PM
 Sample ID: jw129e

SPD-10Avp Ch1-254nm Results				
Pk #	RT	Area	Area %	
1	25.250	51487290	16.794	
2	27.210	254989867	83.205	
Totals		306457157	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WaiWang\jw128e1.dat
 Date Acquired: 9/13/2005 1:27:02 PM Date Printed: 12/07/2005 01:53:11 PM
 Sample ID: jw128e

SPD-10Avp Ch1-254nm Results				
Pk #	RT	Area	Area %	
2	25.470	4049136	7.152	
3	27.000	3704707	6.543	
Totals		7753843	13.695	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WaiWang\jw182e1.dat
 Date Acquired: 9/30/2005 1:52:20 PM Date Printed: 12/07/2005 01:59:58 PM
 Sample ID: jw182e

SPD-10Avp Ch1-254nm Results				
Pk #	RT	Area	Area %	
1	21.930	17282518	10.364	
2	29.550	149305294	89.636	
Totals		166587812	100.000	

Method Name: C:\EZStart\Projects\Default\Method\jw6.met
 Data File: C:\EZStart\Projects\WaiWang\jw181e1.dat
 Date Acquired: 9/30/2005 1:01:22 PM Date Printed: 12/07/2005 02:00:58 PM
 Sample ID: jw181e

SPD-10Avp Ch1-254nm Results				
Pk #	RT	Area	Area %	
2	21.880	13415925	28.070	
5	29.900	16130139	33.749	
Totals		29546064	61.820	

Method Name: C:\ZZStart\Projects\Default\Method\HaoLi5.met
 Data File: C:\ZZStart\Projects\WeiWang\jw173e1.dat
 Date Acquired: 9/27/2005 12:58:24 PM Date Printed: 12/07/2005 02:03:38 PM
 Sample ID: jw173e

SPD-10Avp Chl-254nm Results				
Pk #	RT	Area	Area %	
1	24.590	90029043	97.079	
2	32.650	2708886	2.921	
Totals		92737935	100.000	

Method Name: C:\ZZStart\Projects\Default\Method\HaoLi5.met
 Data File: C:\ZZStart\Projects\WeiWang\jw172e1.dat
 Date Acquired: 9/27/2005 11:54:03 AM Date Printed: 12/07/2005 02:04:20 PM
 Sample ID: jw172e

SPD-10Avp Chl-254nm Results				
Pk #	RT	Area	Area %	
1	24.810	45309713	50.499	
2	31.930	44609537	49.501	
Totals		90119252	100.000	

Method Name: C:\ZZStart\Projects\Default\Method\HaoLi5.met
 Data File: C:\ZZStart\Projects\WeiWang\jw145e1.dat
 Date Acquired: 9/17/2005 5:15:22 PM
 Date Printed: 12/07/2005 02:05:47 PM
 Analysis: System

SPD-10Avp Chl-254nm Results					
Pk #	Name	RT	Area	ESTD conc	Chan
2	Peak # 17.800	17.800	6846551	0.000	SPD-10Avp
3	Peak # 35.720	35.720	62528450	0.000	Chl-254nm
Totals			69373001	0.000	

Method Name: C:\ZZStart\Projects\Default\Method\HaoLi5.met
 Data File: C:\ZZStart\Projects\WeiWang\jw144e1.dat
 Date Acquired: 9/17/2005 2:37:16 PM
 Date Printed: 12/07/2005 02:06:47 PM
 Analysis: System

SPD-10Avp Chl-254nm Results					
Pk #	Name	RT	Area	ESTD conc	Chan
1	Peak # 17.540	17.540	17684630	0.000	SPD-10Avp
2	Peak # 36.440	36.440	14880172	0.000	Chl-254nm
Totals			32564802	0.000	

Method Name: C:\ZZStart\Projects\Default\Method\jw8.met
 Data File: C:\ZZStart\Projects\WeiWang\jw82e1.dat
 Date Acquired: 10/25/2005 12:44:23 PM Date Printed: 12/07/2005 02:10:25 PM
 Sample ID: jw82e

SPD-10Avp Chl-254nm Results				
Pk #	RT	Area	Area %	
1	19.390	70210470	22.264	
2	21.860	245136952	77.736	
Totals		315347422	100.000	

Method Name: C:\ZZStart\Projects\Default\Method\jw8.met
 Data File: C:\ZZStart\Projects\WeiWang\jw85e1.dat
 Date Acquired: 10/25/2005 12:11:56 PM Date Printed: 12/07/2005 02:12:01 PM
 Sample ID: jw85e

SPD-10Avp Chl-254nm Results				
Pk #	RT	Area	Area %	
1	19.310	82330659	47.336	
2	21.890	91596949	52.664	
Totals		173927608	100.000	

Method Name: C:\EZStart\Projects\Default\Method\WaiWang301.met
 Data File: C:\EZStart\Projects\WaiWang\jw14e1.dat
 Date Acquired: 5/31/2005 11:12:13 PM Date Printed: 12/07/2005 02:32:11 PM
 Sample ID: jw14e

SPD-10Avp Chl-210nm Results				
PK #	RT	Area	Area %	
2	27.870	6965688	4.783	
3	49.390	109179379	74.993	
Totals		116145067	79.773	

Method Name: C:\EZStart\Projects\Default\Method\jw7.met
 Data File: C:\EZStart\Projects\WaiWang\jw13e2.dat
 Date Acquired: 5/27/2005 12:24:27 PM Date Printed: 12/07/2005 02:33:50 PM
 Sample ID: jw13e

SPD-10Avp Chl-210nm Results				
PK #	RT	Area	Area %	
2	26.990	53036870	40.538	
3	46.690	53043204	40.543	
Totals		106080074	81.080	

Method Name: C:\EZStart\Projects\Default\Method\jws.met
 Data File: C:\EZStart\Projects\WaiWang\jw14e2.dat
 Date Acquired: 8/24/2005 2:07:44 PM Date Printed: 12/07/2005 02:35:59 PM
 Sample ID: jw14e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
2	11.570	8119588	9.737	
3	35.110	54874455	85.942	
Totals		62994043	75.700	

Method Name: C:\EZStart\Projects\Default\Method\jws.met
 Data File: C:\EZStart\Projects\WaiWang\jw13e1.dat
 Date Acquired: 7/19/2005 11:15:51 AM Date Printed: 12/07/2005 02:37:03 PM
 Sample ID: jw13e

SPD-10Avp Chl-254nm Results				
PK #	RT	Area	Area %	
1	10.610	13703774	49.000	
2	34.340	16344777	51.000	
Totals		32048551	100.000	

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Method Name: C:\EZStart\Projects\Default\Method\HaoLi24.met
Data File: C:\EZStart\Projects\WaiWang\jwo52e.dat
Date Acquired: 2/13/2006 3:41:52 PM Date Printed: 02/13/2006 04:22:39 PM
Sample ID: jwo52e

SPD-10Avp Ch1-254nm Results				
PK #	RT	Area	Area %	
1	11.870	12812059	16.132	
2	12.760	66507464	83.848	
Totals		79319523	100.000	

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Method Name: C:\EZStart\Projects\Default\Method\HaoLi24.met
Data File: C:\EZStart\Projects\WaiWang\jwo52e.dat
Date Acquired: 2/13/2006 11:11:48 AM Date Printed: 02/13/2006 04:23:25 PM
Sample ID: jwo52e

SPD-10Avp Ch1-254nm Results				
PK #	RT	Area	Area %	
1	11.860	33664097	47.077	
2	12.800	37844602	52.923	
Totals		71508699	100.000	

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Method Name: C:\EZStart\Projects\Default\Method\HaoLi24.met
Data File: C:\EZStart\Projects\WaiWang\jwo63e1.dat
Date Acquired: 2/15/2006 5:38:00 PM Date Printed: 02/16/2006 04:16:23 PM
Sample ID: jwo63e

SPD-10Avp Ch1-254nm Results				
PK #	RT	Area	Area %	
1	19.190	8770794	17.733	
2	22.140	31411613	82.267	
Totals		38182407	100.000	

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Method Name: C:\EZStart\Projects\Default\Method\HaoLi24.met
Data File: C:\EZStart\Projects\WaiWang\jwo63e1.dat
Date Acquired: 2/15/2006 3:08:54 PM Date Printed: 02/16/2006 04:13:05 PM
Sample ID: jwo63e

SPD-10Avp Ch1-254nm Results				
PK #	RT	Area	Area %	
1	19.090	37482921	48.013	
2	22.060	40581932	51.985	
Totals		78064853	100.000	

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Method Name: C:\EZStart\Projects\Default\Method\HaoLi24.met
Data File: C:\EZStart\Projects\WaiWang\jwo64e.dat
Date Acquired: 2/15/2006 5:07:01 PM Date Printed: 02/16/2006 04:15:58 PM
Sample ID: jwo64e

SPD-10Avp Ch1-254nm Results				
PK #	RT	Area	Area %	
1	21.220	9044021	17.727	
2	25.190	41973274	82.273	
Totals		51017295	100.000	

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Method Name: C:\EZStart\Projects\Default\Method\HaoLi24.met
Data File: C:\EZStart\Projects\WaiWang\jwo62e1.dat
Date Acquired: 2/15/2006 2:36:33 PM Date Printed: 02/16/2006 04:15:16 PM
Sample ID: jwo62e

SPD-10Avp Ch1-254nm Results				
PK #	RT	Area	Area %	
1	21.040	32753963	48.063	
2	25.060	35391423	51.935	
Totals		68145386	100.000