

¹H NMR data of the products:

4'-methyl-4-phenylanisole (**3a**): ¹H NMR (400 MHz, CDCl₃): δ 2.41 (3H, s, CH₃), 3.87 (3H, s, OCH₃), 6.99 (2H, d, *J* = 8.7 Hz, ArH), 7.25 (2H, d, *J* = 8.0 Hz, ArH), 7.47 (2H, d, *J* = 8.0 Hz, ArH), 7.54 (2H, d, *J* = 8.7 Hz, ArH).

4-phenylanisole (**3b**): ¹H NMR (400 MHz, CDCl₃): δ 3.88 (3H, s, OCH₃), 7.00 (2H, d, *J* = 8.4 Hz, ArH), 7.33-7.34 (1H, m, ArH), 7.44 (2H, t, *J* = 7.6 Hz, ArH), 7.54-7.59 (4H, m, ArH).

4, 4'-dimethoxybiphenyl (**3c**): ¹H NMR (400 MHz, CDCl₃): δ 3.87 (6H, s, OCH₃), 6.98 (4H, d, *J* = 8.3 Hz, ArH), 7.50 (4H, d, *J* = 8.3 Hz, ArH).

4-phenylanisole (**3d**): ¹H-NMR (400 MHz, CDCl₃): δ 3.87 (3H, s, OCH₃), 6.99 (2H, d, *J* = 8.5 Hz, ArH), 7.28-7.34 (1H, m, ArH), 7.43 (2H, t, *J* = 7.7 Hz, ArH), 7.45-7.58 (4H, m, ArH).

4-methoxy-4'-nitrobiphenyl (**3e**): ¹H NMR (400 MHz, CDCl₃): δ 3.90 (3H, s, OCH₃), 7.04 (2H, d, *J* = 8.7 Hz, ArH), 7.61 (2H, d, *J* = 8.8 Hz, ArH), 7.72 (2H, d, *J* = 8.8 Hz, ArH), 8.30 (2H, d, *J* = 8.7 Hz, ArH).

4-nitrobiphenyl (**3f**): ¹H NMR (400 MHz, CDCl₃): δ 7.46-7.54 (3H, m, ArH), 7.66 (2H, d, *J* = 7.9 Hz, ArH), 7.76 (2H, d, *J* = 8.6 Hz, ArH), 8.32 (2H, d, *J* = 8.6 Hz, ArH).

4-methoxy-4'-acetylbiphenyl (**3g**): ¹H NMR (400 MHz, CDCl₃): δ 2.65 (3H, s, COCH₃), 3.89 (3H, s, OCH₃), 7.03 (2H, d, *J* = 8.4 Hz, ArH), 7.61 (2H, d, *J* = 8.4 Hz, ArH), 7.67 (2H, d, *J* = 8.0 Hz, ArH), 8.03 (2H, d, *J* = 8.0 Hz, ArH).

4-Acetylbiphenyl (**3h**): ¹H NMR (400 MHz, CDCl₃): δ 2.67 (3H, s, COCH₃), 7.43-7.45 (1H, m, ArH), 7.48-7.52 (2H, m, ArH), 7.66 (2H, d, *J* = 7.6 Hz, ArH), 7.72 (2H, d, *J* = 8.1 Hz, ArH), 8.06(2H, d, *J* = 8.1 Hz, ArH).

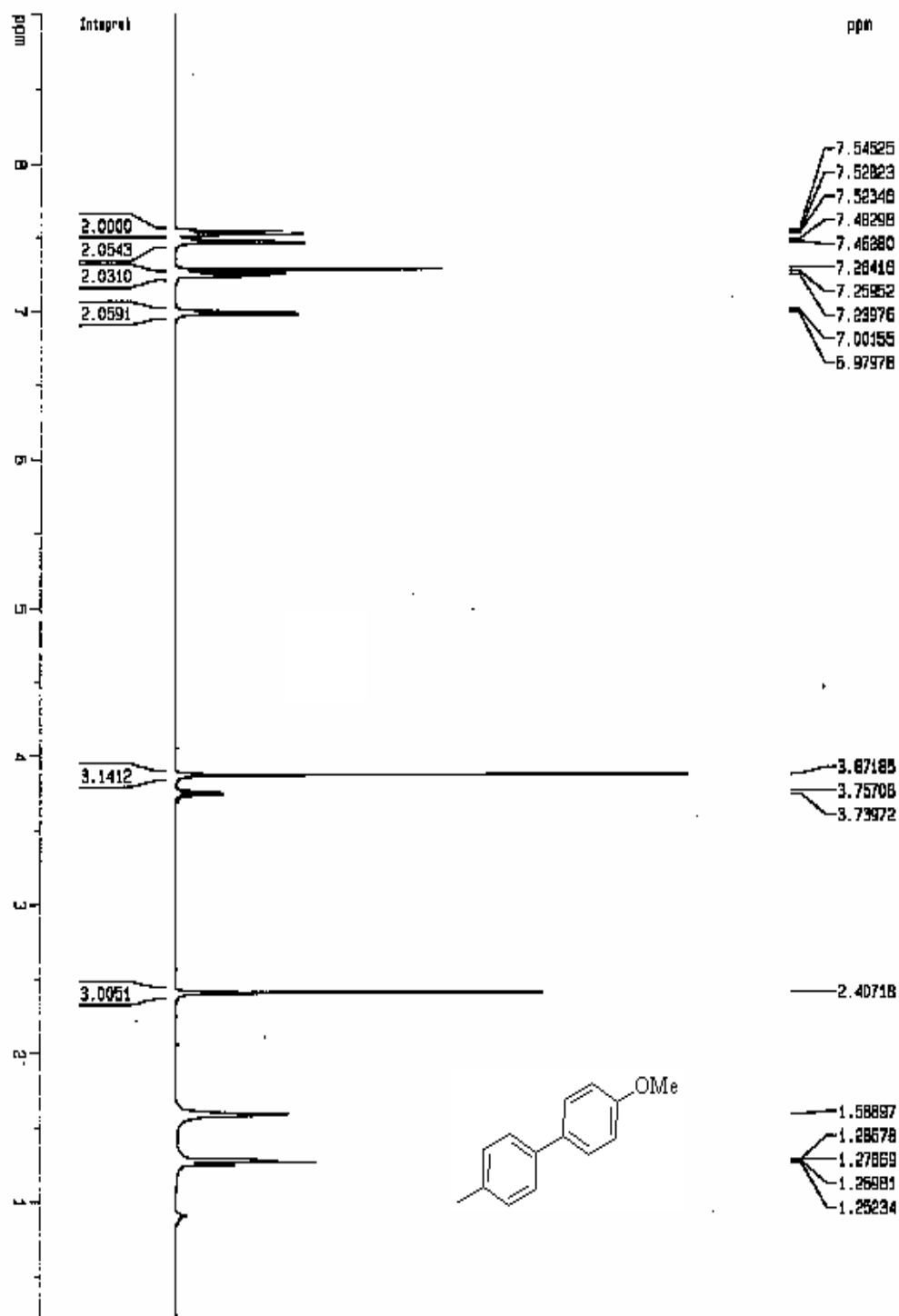
3-phenylanisole (**3i**): ¹H NMR (400 MHz, CDCl₃): δ 3.92 (3H, s, OCH₃), 6.98 (1H, d, *J* = 8.0 Hz, ArH), 7.21 (1H, s, ArH), 7.26 (1H, d, *J* = 8.0 Hz, ArH), 7.40-7.44 (2H, m, ArH), 7.48-7.52 (2H, m, ArH), 7.66 (2H, d, *J* = 7.7 Hz, Ar).

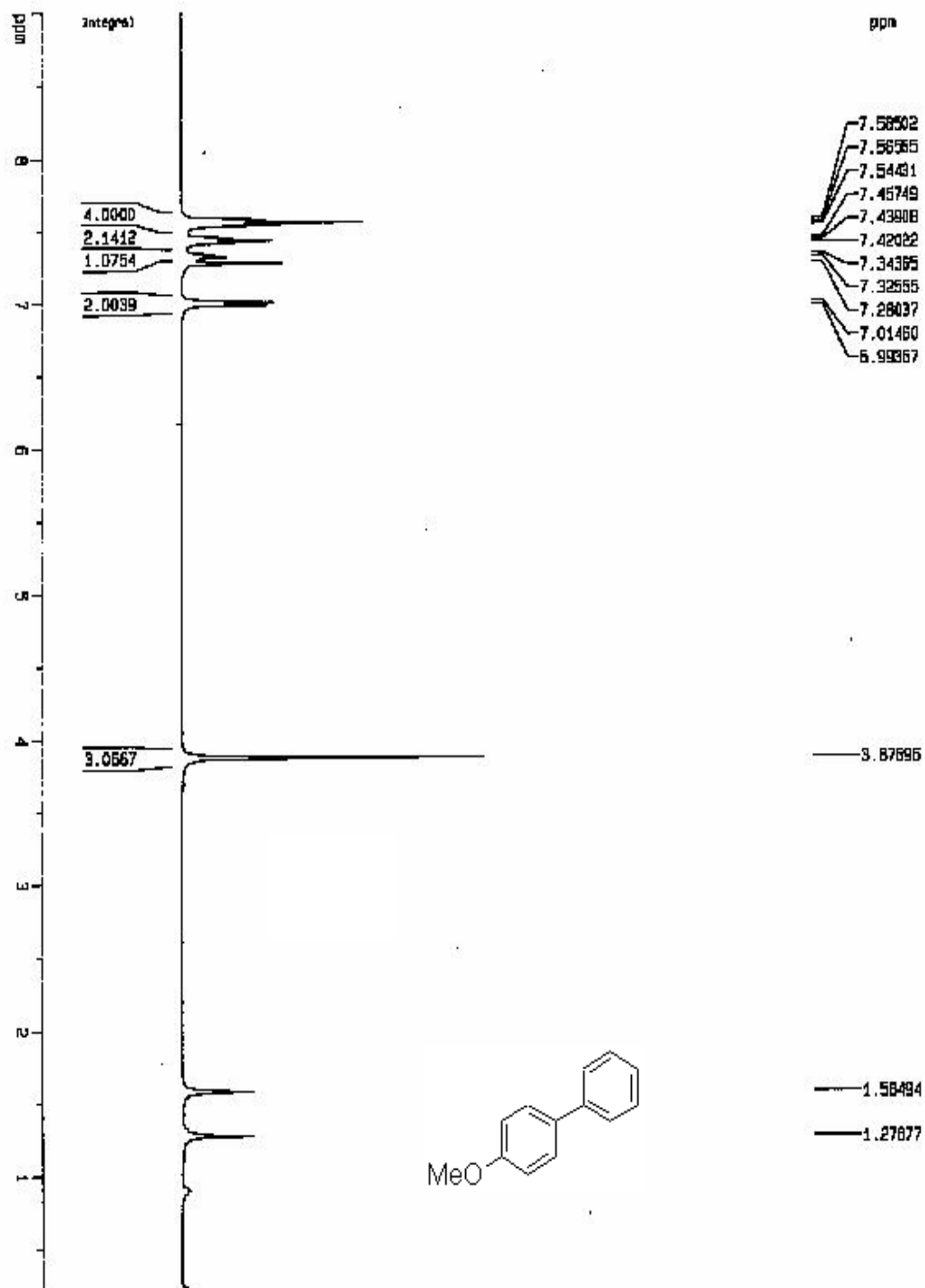
3-methylbiphenyl (**3j**): ¹H NMR (400 MHz, CDCl₃): δ 2.50 (3H, s, CH₃), 7.25 (1H, d, *J* = 7.4 Hz, ArH), 7.39-7.43 (2H, m, ArH), 7.49-7.53 (4H, m, ArH), 7.70 (2H, d, *J* = 7.3 Hz, ArH).

4'-methyl-3-phenylanisole (**3k**): ¹H NMR (400 MHz, CDCl₃): δ 2.43 (3H, s, CH₃), 3.90 (3H, s, OCH₃), 6.91(1H, d, *J* = 8.1 Hz, ArH), 7.15(1H, s, ArH), 7.21(1H, d, *J* = 8.0 Hz, ArH), 7.28 (2H, d, *J* = 8.0 Hz, ArH), 7.36-7.40 (1H, m, ArH), 7.53 (2H, d, *J* = 8.0 Hz, ArH).

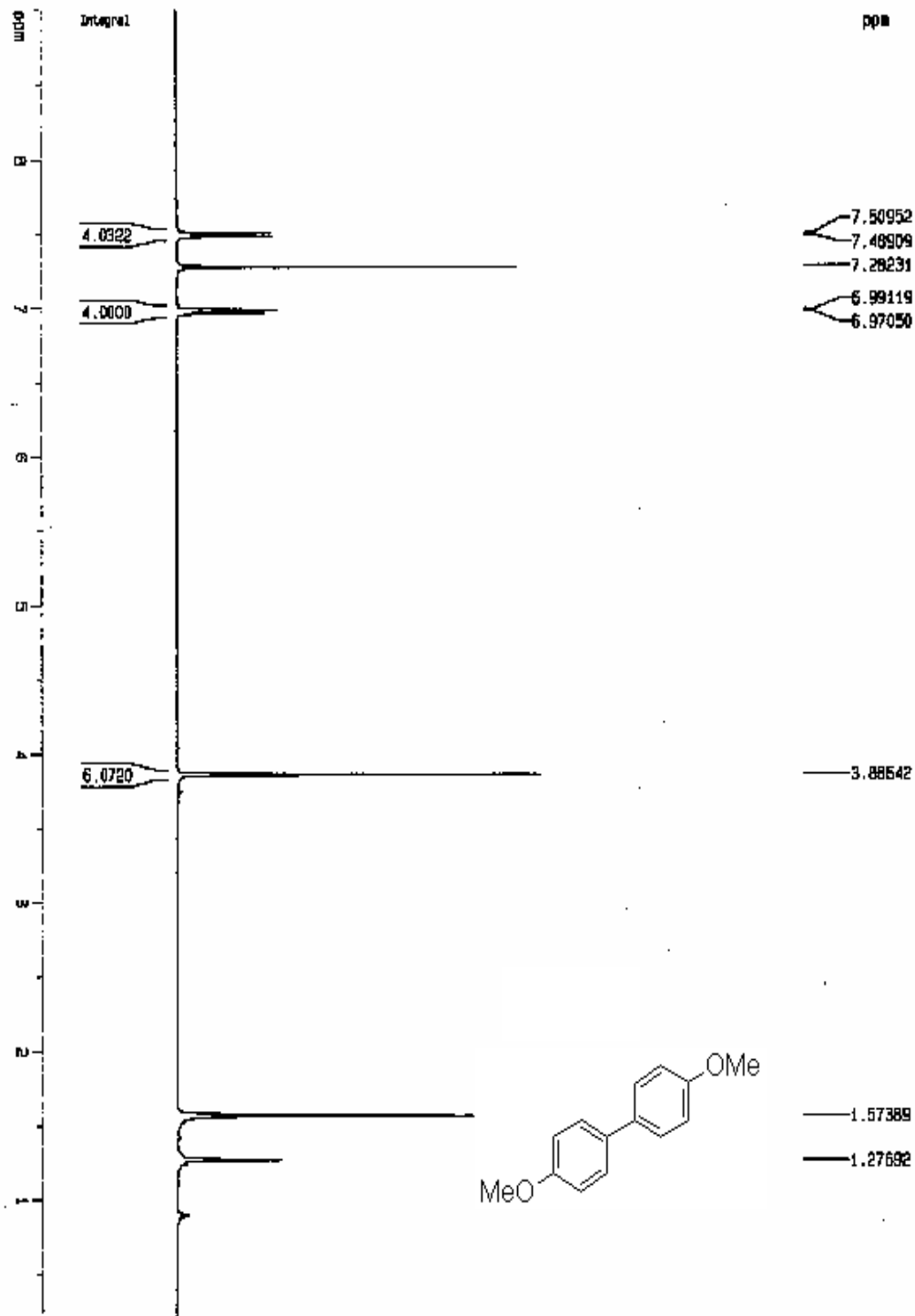
2, 4'-bimethylbiphenyl (**3l**): ^1H NMR (400 MHz, CDCl_3): δ 2.43 (3H, s, CH_3), 2.55 (3H, s, CH_3), 7.37-7.40 (8H, m, ArH).

4-methylbiphenyl (**3m**): ^1H NMR (400 MHz, CDCl_3): δ 2.44 (3H, s, CH_3), 7.29 (2H, d, $J = 8.0$ Hz, ArH), 7.36 (1H, m, ArH), 7.47 (2H, m, ArH), 7.54 (2H, d, $J = 8.0$ Hz, ArH), 7.62 (2H, d, $J = 7.7$ Hz, ArH).

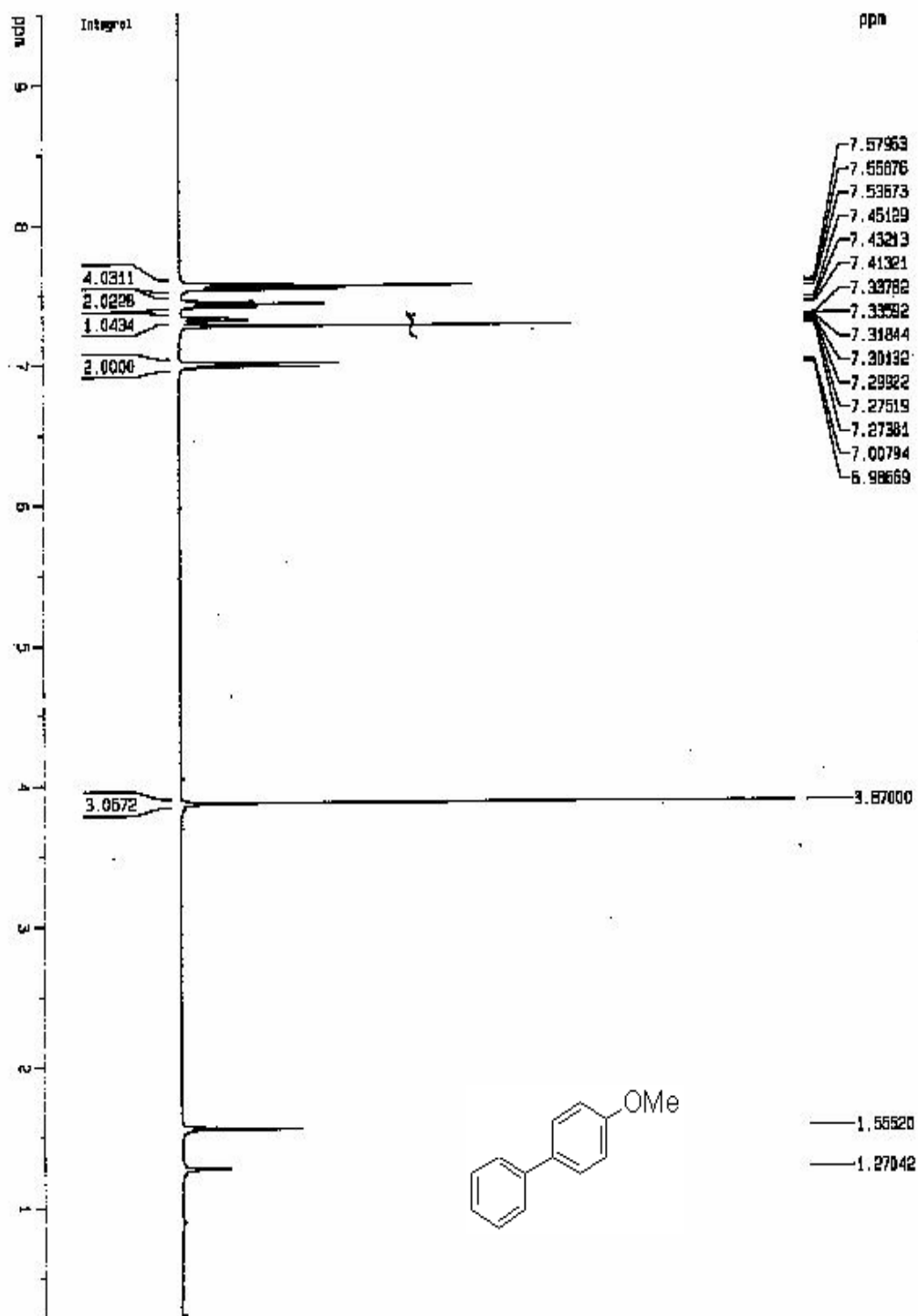




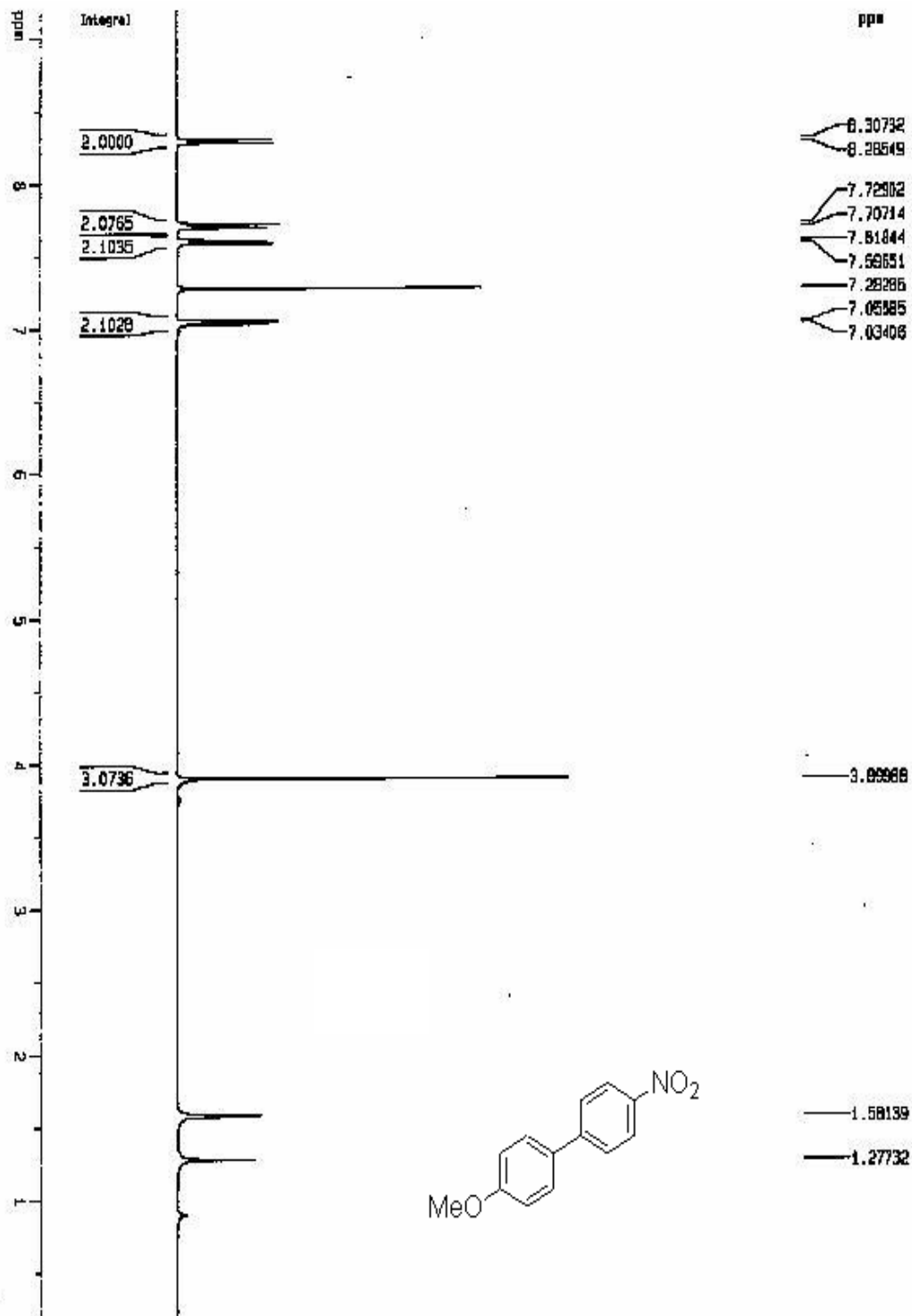
1H CDCl3 (44, JXG) BRUKER AV400 06.08.2011



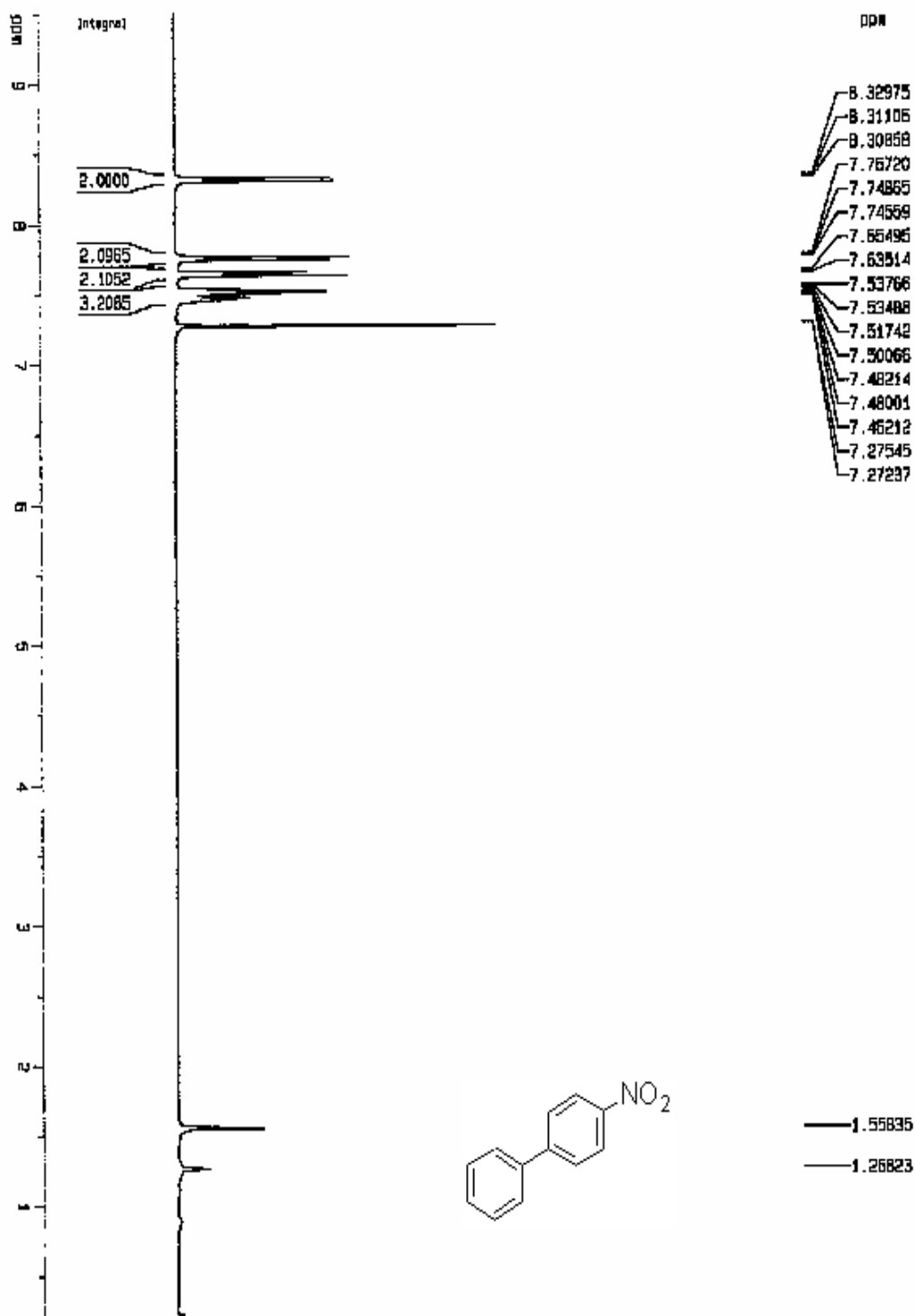
1H 400MHz (CDCl₃) BRUKER AV400 06/08/2011

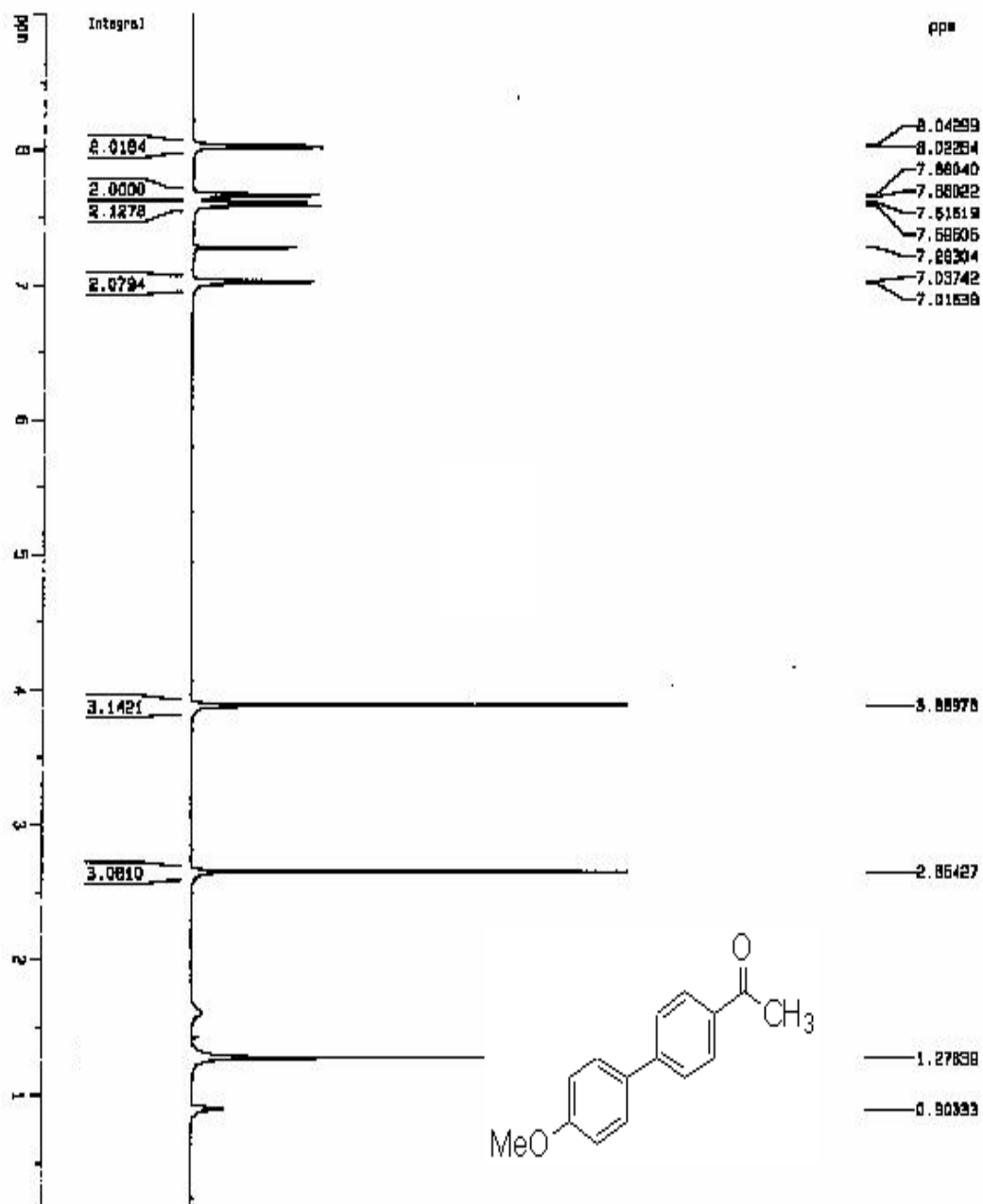


1H CDCl₃ (1%, JXQ) BRUKER AV400 05.01.2011

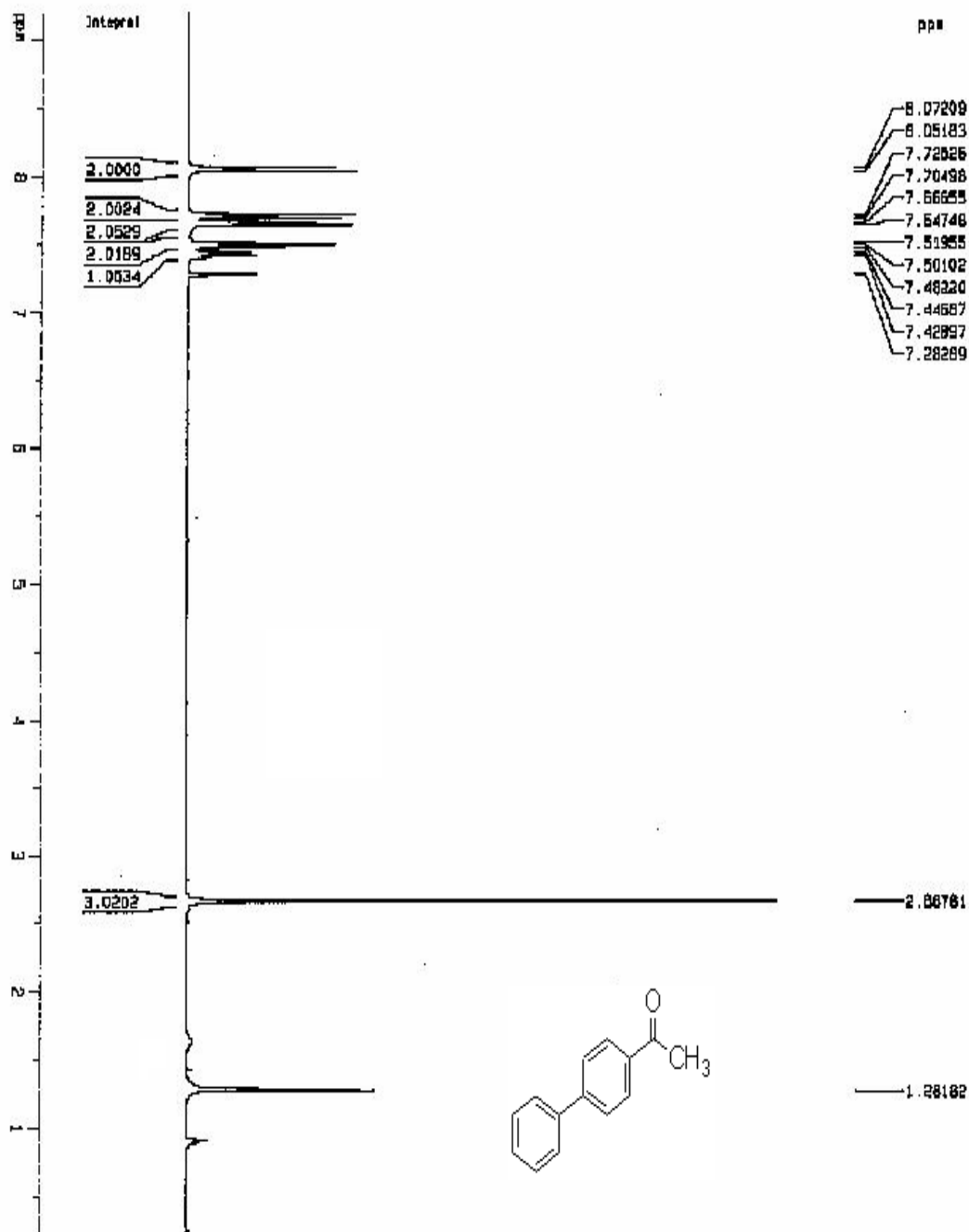


1H NMR (29, JNM) BRUKER AV400 06.08.2011





1H NMR (400 MHz, CDCl₃) of 4-methoxyacetophenone, 17, 2011



1H NMR (CDCl₃, JMO) BRUKER AV400 05.17.2011

