Supplementary Material (ESI) for Green Chemistry

Supporting Information for:

Solvent-Modulated Reactivity of PCl_3 with Amines

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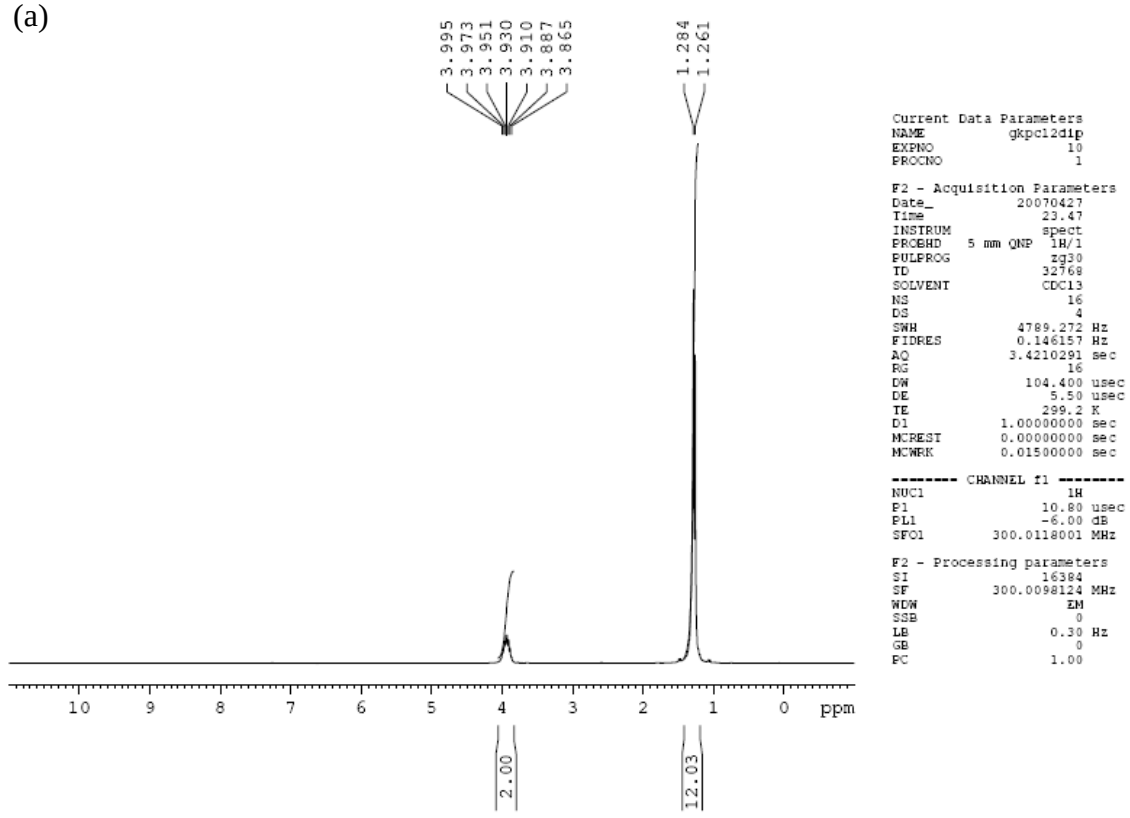
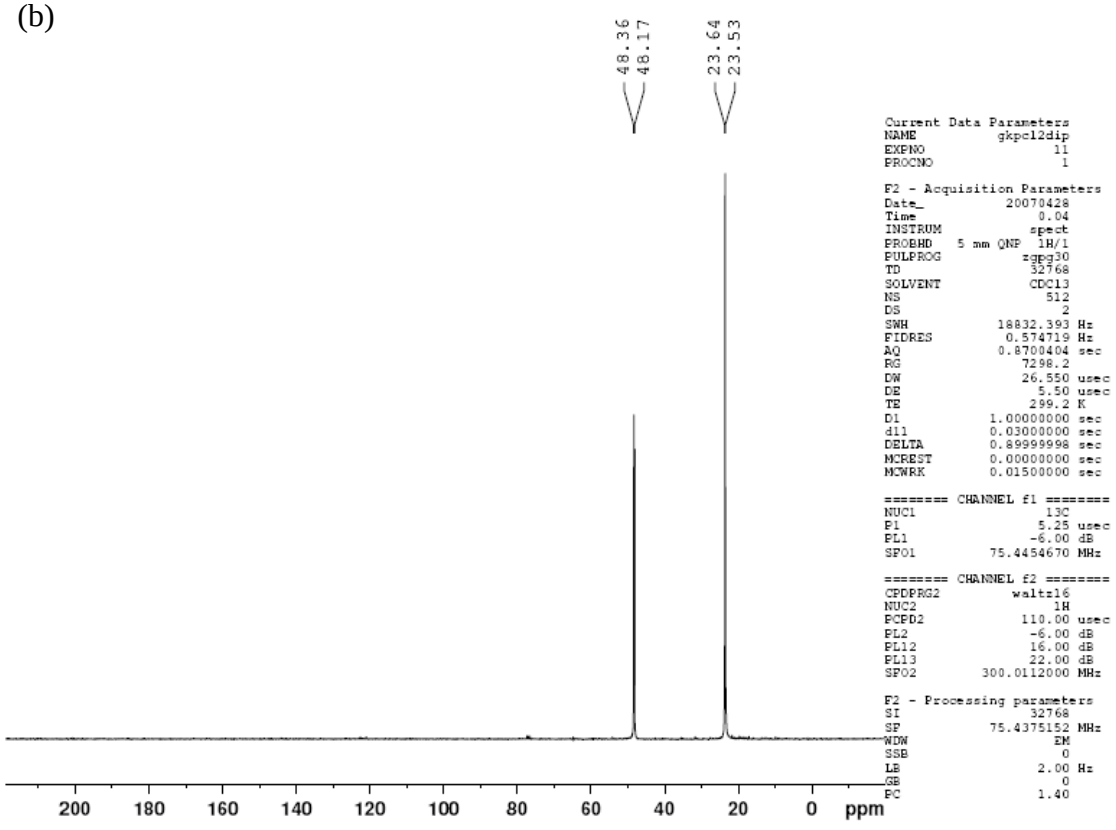
Figure S1

(a) ^{1}H NMR, (b) ^{13}C NMR and ^{31}P NMR spectra following the reaction 0.4 mol of distilled diisopropylamine (56.10 cm^3) and 0.4 mol of distilled ethyldiisopropylamine (Hünig's base, 69.68 cm^3) with 0.4 mol of PCl_3 (34.90 cm^3) in $[C_4mim][NTf_2]$ under argon and subsequent isolation of dichloro diisopropylaminophosphine at 20°C.

(a)



(b)

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PROCNO                        1

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PULPROG                 zgpg30
TD                       32768
SOLVENT                  CDCl3
NS                         512
DS                           2
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FIDRES                0.574719 Hz
AQ                    0.8700404 sec
RG                       7298.2
DW                       26.550 usec
DE                         5.50 usec
TE                        299.2 K
D1                    1.00000000 sec
d11                   0.03000000 sec
DELTA                 0.89999998 sec
MCREST                0.00000000 sec
MCWRK                 0.01500000 sec

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P1                         5.25 usec
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SFO1                 75.4454670 MHz

======== CHANNEL f2 ========
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NUC2                         1H
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PL12                      16.00 dB
PL13                      22.00 dB
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F2 - Processing parameters
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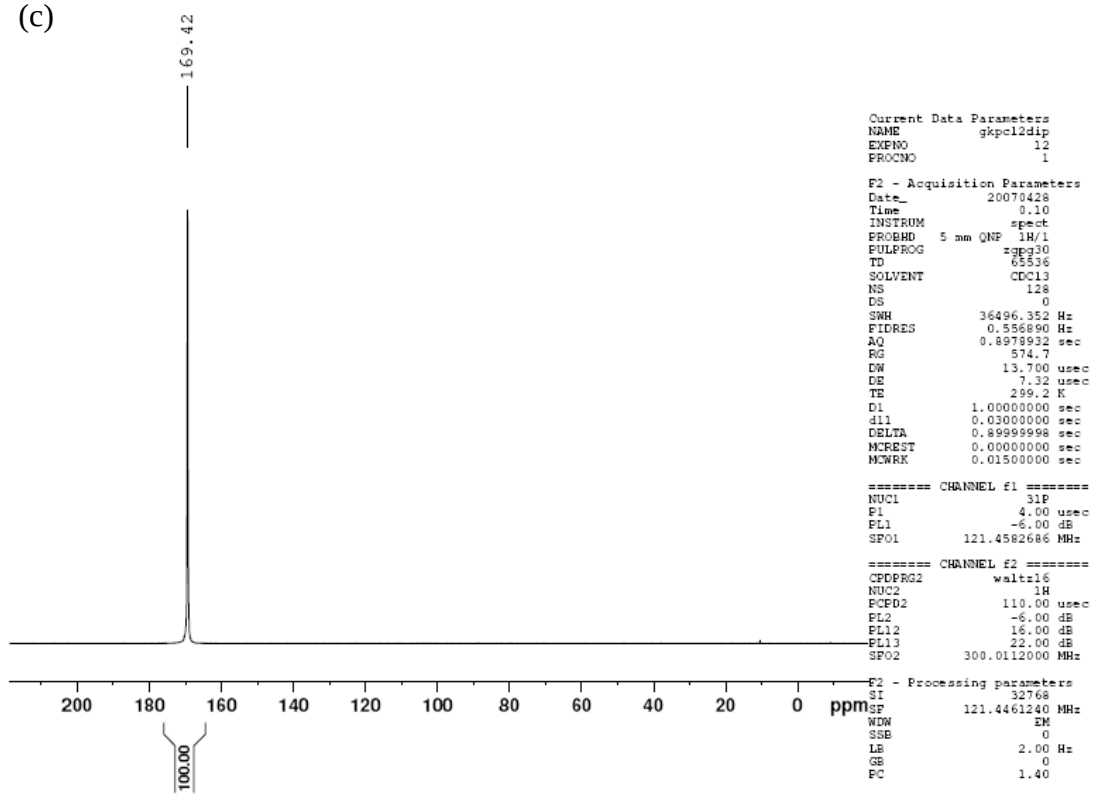
(c)

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MCREST                0.00000000 sec
MCWRK                 0.01500000 sec

======== CHANNEL f1 ========
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PL1                       -6.00 dB
SFO1                121.4582686 MHz

======== CHANNEL f2 ========
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NUC2                         1H
PCPD2                    110.00 usec
PL2                       -6.00 dB
PL12                      16.00 dB
PL13                      22.00 dB
SFO2                300.0112000 MHz

F2 - Processing parameters
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LB                        2.00 Hz
GB                           0
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Figure S2 A comparison of the reaction mixture following the reaction of PCl_3 (0.0008 mol) with diisopropylamine (0.0008 mol) in the presence of Hünig's base (0.0008 mol) and either 1.5 cm^3 (a) hexane (0.011 mol) or (b) $[C_4mpyrr][NTf_2]$ (0.005 mol) at 20 ^oC.