

Supplementary Information For:

Triphos derivatives and diphosphines as ligands in the ruthenium-catalysed alcohol amination with NH_3

Naohisa Nakagawa,^a Eric J. Derrah,^a Mathias Schelwies,^b Frank Rominger,^c
Oliver Trapp^c and Thomas Schaub^{*a,b}

^a Drs. N. Nakagawa, E. J. Derrah and T. Schaub, CaRLa (Catalysis Research Laboratory), Im Neuenheimer Feld 584, D-69120 Heidelberg, Germany, Fax: (+)49 621 60-6648957, E-mail: thomas.schaub@basf.com; ^b Drs. M. Schelwies and T. Schaub, BASF SE, Synthesis and Homogeneous Catalysis, Carl-Bosch-Straße 38, D-67056 Ludwigshafen, Germany; ^c Dr. F. Rominger and Prof. Dr. O. Trapp, Ruprecht-Karls-Universität Heidelberg, Organisch-Chemisches Institut, Im Neuenheimer Feld 270, D-69120, Heidelberg, Germany

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^1H and ^{31}P NMR spectra for the mixture of (D-1), (D-2) and (D-3)

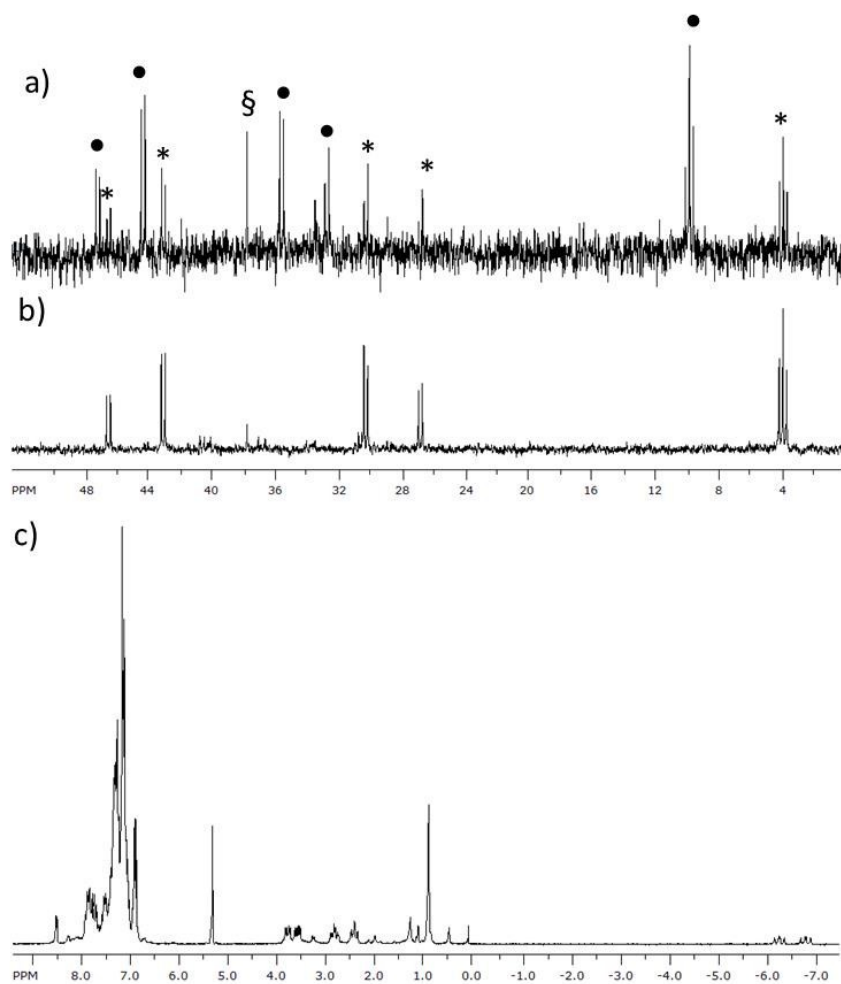
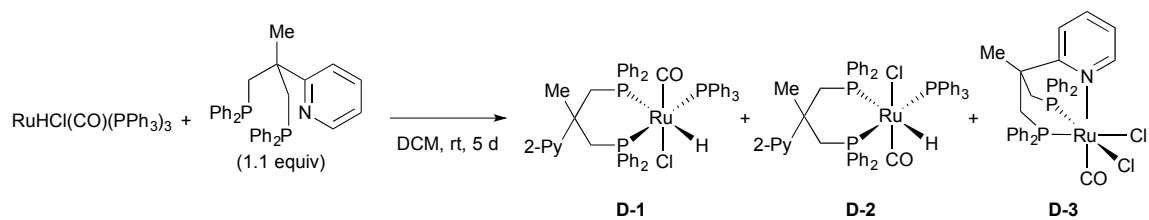
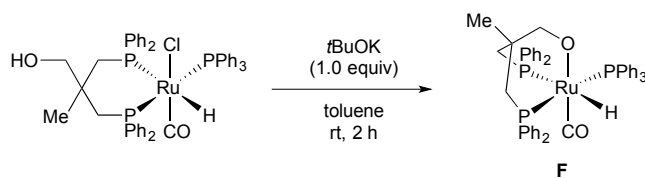


Figure S1. a) The $^{31}\text{P}\{^1\text{H}\}$ NMR spectrum of a crude reaction mixture containing hydride complexes **D-1** (*) and **D-2** ($\bullet$), and chlorocomplex **D-3** (§). The $^{31}\text{P}\{^1\text{H}\}$ (b) and ^1H NMR spectrum (c) of supposed hydride complex **D-1**.

LIFDI spectra for (F)



HRMS (LIFDI) m/z $[F]^+$ calcd for $C_{48}H_{45}O_2P_3Ru$ 848.1676.

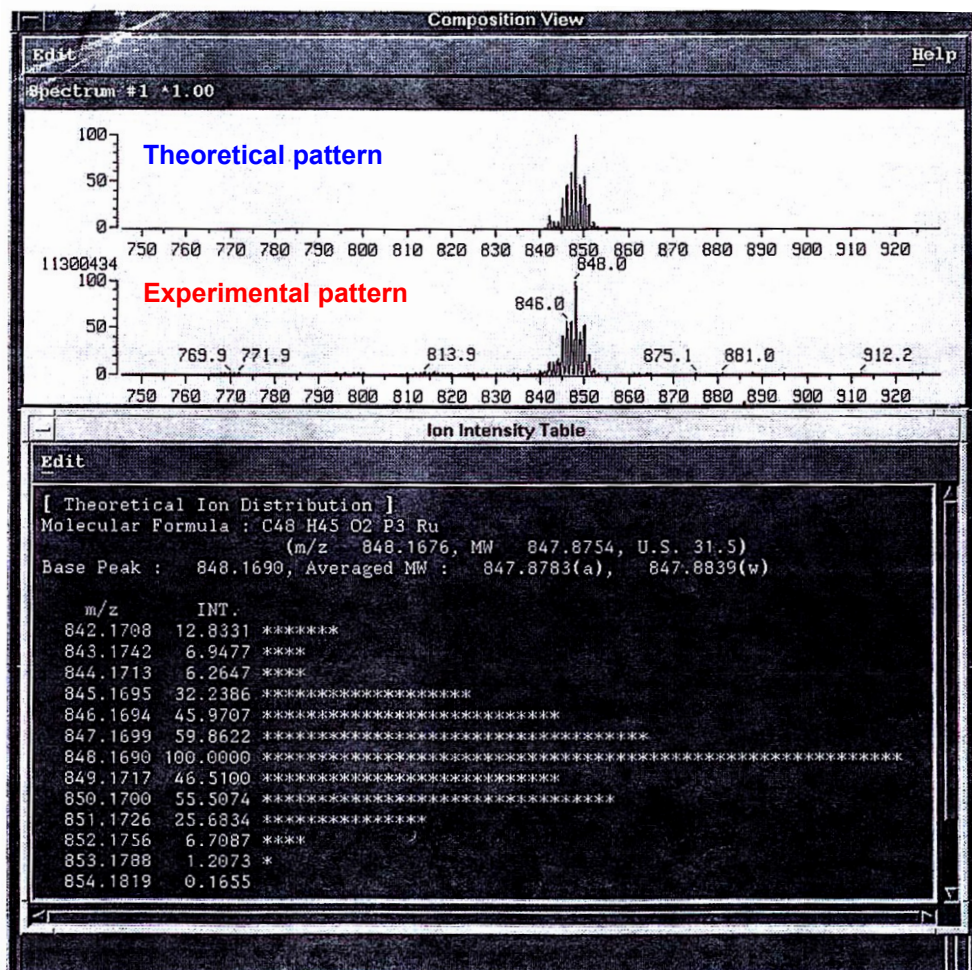
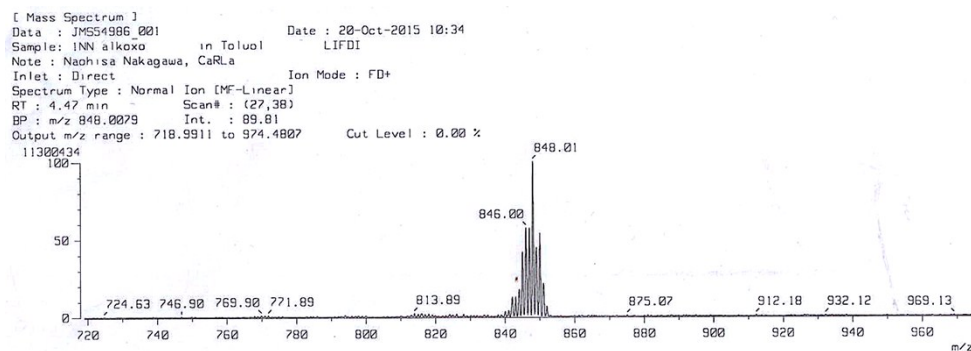


Figure S2. LIFDI analysis on the supposed alkoxo ruthenium complex **F**.