Supporting Information

For

$(\mu-\eta^2: \eta^2$-Disulfido)dinickel(II) complexes supported by 6-methyl-TPA ligands

Atsushi Kunisita,† Masayuki Inosako,‡ Minoru Kubo,§ Takashi Ogura,§ Hideki Sugimoto,† and Shinobu Itoh†,*

†Department of Material and Life Science, Division of Advanced Science and Biotechnology, Graduate School of Engineering, Osaka University, 2-1 Yamada-oka, Suita, Osaka 565-0871, Japan

‡Department of Chemistry, Graduate School of Science, Osaka City University, 3-3-138 Sugimoto, Sumiyoshi-ku, Osaka 558-8585, Japan

§Research Institute of Picobiology, Graduate School of Life Science, University of Hyogo, 3-2-1 Kouto, Kamigori-cho, Ako-gun, Hyogo 678-1297, Japan
**Fig S1.** $^1$H NMR spectrum of $1^\circ$ in CD$_3$CN at 25 °C. Spectrum is referenced to the residual proton of solvent CHD$_2$CN at 1.94 ppm.
Fig S2. $^1$H NMR spectrum of 1 in CD$_3$CN at 25 °C. Spectrum is referenced to the residual proton of solvent CHD$_2$CN at 1.94 ppm.
Fig S3. $^1$H NMR spectrum of 1 in CD$_3$CN at 25 °C. Spectrum is referenced to the residual proton of solvent CHD$_2$CN at 1.94 ppm.
**Fig S4.** $^1$H NMR spectrum of $^1$ in CD$_3$CN at 25 °C. Spectrum is referenced to the residual proton of solvent CHD$_2$CN at 1.94 ppm.
Fig. S5  Spectral changes for the reaction of $2^0$ (1.0 x 10$^{-4}$ M) and PPh$_3$ (1.0 x 10$^{-4}$ M) in CH$_2$Cl$_2$ at 30 °C. Inset: Second–order plot based on the absorption change at 359 nm.
Fig. S6  (A) Spectral changes of the reaction of $2^2$ (1.0 x 10^{-4} M) and PPh$_3$ (1.5 x 10^{-2} M) in CH$_2$Cl$_2$ at 30 °C. Inset: first–order plot based on the absorption change at 360 nm. (B) Plot of $k_{obs}$ vs [PPh$_3$]
Fig. S7

(A) Spectral changes of the reaction of 2^3 (1.0 x 10^{-4} M) and PPh_3 (1.0 x 10^{-3} M) in CH_2Cl_2 at 30 °C. Inset: first-order plot based on the absorption change at 360 nm. (B) Plot of k_{obs} vs [PPh_3]