Figure 1. The ESI-mass spectrum of \([\text{Pd}(\eta^3-C_3H_5)(1)]^+\), 2 in methanol.

Figure 2. The ESI-mass spectrum of \([\text{Ru}(\text{bpy})_2(1)]^{2+}\), 3a in acetonitrile.

Figure 3. The ESI-mass spectrum of \([\text{Ru}(d_8-\text{bpy})_2(1)]^{2+}\), 3b in acetonitrile.
Figure 4. The ESI-mass spectrum of [Ru(bpy)₂(4)]²⁺, 5 in acetonitrile after (a) 0 and (b) 200 seconds of irradiation (125-W Mercury lamp). Peak assignments: 588.2 = 5, [M-2PF₆]²⁺; 608.7 = [Ru(bpy)₂(4)(CH₃CN)]²⁺, [M-2PF₆]²⁺; 248.0 = [Ru(bpy)₂(CH₃CN)₂]²⁺, [M-2PF₆]²⁺. (The envelope in both spectra at m/z=490 is assigned to the unreacted starting material [Ru(bpy)₂Cl₂])

Figure 5. The ¹H NMR spectra of [Pd(η³-C₃H₅)(1)]PF₆, 2 (CDCl₃, 40°C, 400 MHz).
Figure 6. The aromatic region of the $^1$H NMR spectrum of 2 at 21°C and 40°C (CDCl$_3$, 400 MHz).

Figure 7. The aromatic region of the $^1$H-$^1$H TOCSY NMR spectra of [Ru(bpy)$_2$(I)$_2$]$^{2+}$, 3a (CD$_3$CN, 23 K, 400 MHz).
Figure 8. The Cyclic voltammogram of 1 in chloroform. Supporting electrolyte: Bu₄NPF₆ (0.1 M); glassy carbon working electrode, Pt wire auxiliary electrode, SCE reference electrode.