# **Supplementary Material**

# Synthesis and characterization of water-soluble arene-ruthenium complexes and their application in biphasic olefin oxidation

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Table S1. IR spectral data of complexes **1a**-**1d**.

|  |  |  |
| --- | --- | --- |
| Complex | Ligand | Complex |
| **1a** | 1668 | 1615 |
| **1b** | 1625 | 1613 |
| **1c** | 1631 | 1620 |
| **1d** | 1627 | 1615 |

Table S2. Selected bond lengths (Å) and angles (°) of compound **1d**·4H2O.

|  |  |
| --- | --- |
| Bond lengths | Bond angles |
| Ru(1)−N(1) | 2.087(15) | N(1)−Ru(1)−N(2) | 76.91(7) |
| Ru(1)−N(2) | 2.0991(18) | N(1)−Ru(1)−Cl(1) | 85.93(5) |
| Ru(1)−Cl(1) | 2.4145(8) | N(2)−Ru(1)−Cl(1) | 87.93(5) |

Figure S1. UV-Vis spectra of complexes **1a**-**1d**.



Figure S2. Hydrogen bonding network found in the crystal of structure of **1d**·4H2O. The symmetry code for (i) = 2–x, 1–y, 1–z and (ii) = 1+x, -1+y, z.

**1a**











**1b**











**1c**











**1d**









