Deposited data are data experimentaly recorded and used to produce following figures in the paper:

Figure 2 (pH recorded in the PCOC of phenylacetylene in methanol, ethanol, 1-propanol, 1-butanol and 1-hexanol. [PhAc] = 12.57 mmol; [KI] = 250 mmol; [Pd(OAc)2] = 1.34 mmol; ROH = 100 mL;CO = 15 mL/min and air = 15 mL/min

Figure 3 (pH recorded in the PCOC of phenylacetylene in methanol (black), ethanol (grey). [PhAc] = 12.57 mmol; [KI] = 250 mmol; [Pd(OAc)2] = 1.34 mmol; ROH = 100 mL; CO = 15 mL/min and air = 15 mL/min)

Figure 4 (pH recorded in the PCOC of phenylacetylene in 1-propanol (black) and 1-butanol (grey). [PhAc] = 12.57 mmol; [KI] = 250 mmol; [Pd(OAc)2] = 1.34 mmol; ROH = 100 mL; CO = 15 mL/min and air = 15 mL/min)

Figure 5 (pH recorded in the oxidative carbonylation reaction using PhAc/Pd-polyacrylate in MeOH, EtOH, 1-PrOH, 1-BuOH and 1-HexOH. [PhAc] = 12.57 mmol; [KI] = 250 mmol; Pd-polyacrylate = 200 mg; ROH = 100 mL; CO = 15 mL/min and air = 15 mL/min)

Figure 6 (pH recorded in the oxidative carbonylation reaction using PhAc/Pd-polyacrylate in MeOH (black), and EtOH (grey) [PhAc] = 12.57 mmol; [KI] = 250 mmol; Pd-polyacrylate = 200 mg; ROH = 100 mL; CO = 15 mL/min and air = 15 mL/min)

Figure 7 (pH recorded in the oxidative carbonylation reaction using PhAc/Pd-polyacrylate in 1-PrOH, 1-BuOH and 1-HexOH. [PhAc] = 12.57 mmol; [KI] = 250 mmol; Pd-polyacrylate = 200 mg; ROH = 100 mL; CO = 15 mL/min and air = 15 mL/min)

Figure 9 (pH recorded in the oxidative carbonylation reaction using PEGA/Pd-polyacrylate in EtOH. PEGA = 200 mg, 275 mg and 350 mg; [KI] = 250 mmol; Pd-polyacrylate = 200 mg; EtOH = 100 mL; CO = 15 mL/min and air = 15 mL/min)