

Qualifiers
Not in case

Results

Solvent	P Conc (g/ml)	Rxn temp. (C)	Catalyst	Time (hr)	Explanation	\$/Mn	\$/Bdt	\$%	Outcome
odCl	1	70	25d 1N HCl	12	% S vs time	29k	1.14	67	
odCl	1	70	25d 1N HCl	26	% S vs time	26k	1.18	80	
odCl	1	70	25d 1N HCl	47.5	% S vs time	63k	1.05	36	
odCl	1	70	25d 1N HCl	72.5	% S vs time	90k/50k	1.04/1.06	18/19	
odCl	1	70	25d 1N HCl	96	% S vs time	25k	1.17	54	
odCl	1	70	25d 1N HCl	121	% S vs time	25k	1.17	50	
odCl	1	70	25d 1N HCl	140.5	% S vs time	62k	1.14	38	
odCl	1	70	25d 1N HCl	158	% S vs time	63k	1.13	38	
odCl	1	70	25d 1N HCl	330.5	% S vs time	25k	1.18	55	
odCl	1	120	25d 1N HCl	48.5	effect temp	64k	1.14	38	
odCl	1	120	25d 1N HCl	47.5/144.5a	effect temp	62k	1.08	38	
odCl	1	120	25d 1N HCl	604.5/274a	effect temp	66k	1.12	37	
THF	1	70	25d 1N HCl	12	% S vs time	55k	1.19	36	
THF	1	70	25d 1N HCl	24	% S vs time	15k	1.1	42	
THF	1	70	25d 1N HCl	38	% S vs time	18k	1.12	47	
THF	1	70	25d 1N HCl	59.5	% S vs time	76k/35k	1.03/1.08	14/23	
THF	1	70	25d 1N HCl	84.5	% S vs time	72k	1.05	26	
THF	1	70	25d 1N HCl	108	% S vs time	62k	1.13	37	
THF	1	70	25d 1N HCl	133	% S vs time	61k	1.13	37	
THF	1	70	25d 1N HCl	152.5	% S vs time	62k	1.12	37	
THF	1	70	25d 1N HCl	170	% S vs time	65k	1.1	36	
THF	1	70	25d 1N HCl	342.5	% S vs time	66k	1.09	34	
THF	1	120	25d 1N HCl	41.5/210a	effect temp	60k (dec)	1.1	28	
THF	1	120	25d 1N HCl	48.7/144.5a	effect temp	48k (dec)	1.15	22	
THF	1	120	25d 1N HCl	616.5/274a	effect temp	31k (dec)	1.1	10	

S = star
 t = total time
 a = actual time at specific temp.
 dec = there was low MW tailing for the arm peak

Scouting Experiments for Star Formation by

30.5 h at 70°C

3uL

Mu/Ku

Solvent	P Conc (g/mL)	Rxn temp. (C)	Catalyst	Time (hr)	Explanation	S Mn	S PDI	S %	Outcome
THF	0.04	70	10d 0.15N HCl	24	first rxn	54k	1.07	18	
THF	0.04	70	10d 0.5N HCl	24	cat strength	54k	1.07	18	no change
THF	0.5	70	10d 1.0N HCl	24	P conc.	33k	1.08	36	yield up, weight down
THF	1	70	10d 1.0N HCl	24	P conc.	47k	1.13	37	yield same, weight up
THF	2	70	20d 5.0N HCl	24	P conc./cat st.	52k	1.11	37	yield same, weight up
none	neat	90	10mL 1.0N HCl	24	P conc	47k	1.55	29	yield down, weight down
odCl	0.04	147	10d 0.5N HCl	24	solv.	46k	1.07	8	yield and weight not as high as THF
odCl	0.2	147	10d 0.5N HCl	24	solv. and P conc.	46k	1.06	14	yield up with conc up
THF	1.0	70	^{1kL} pH 12 (AcOH + HCl + H ₂ O)	26	catalyst	46k	1.06	34	yield and wt similar to acid cat.