

Ni-catalyzed Electrochemical Decarboxylative C–C couplings in Batch and Continuous Flow

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II. Experimental Procedures and Analytical Data

III. NMR Spectra of Compounds

I. General Information

General Methods

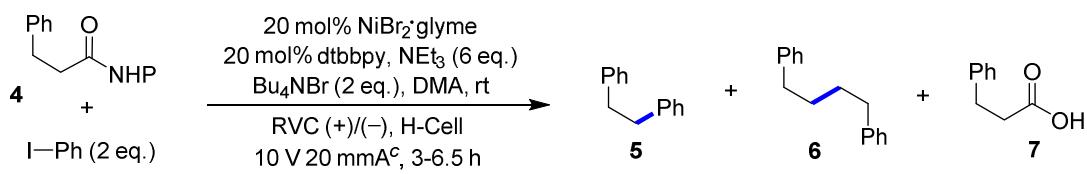
Chemicals

Electrochemical Reactors, Power Supply, Electrode Materials

II. Experimental Procedures and Analytical Data

Section 1.

Table S1. Complete Table of Reaction Optimization



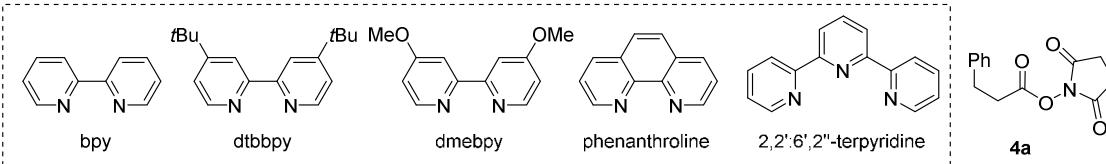
a

b

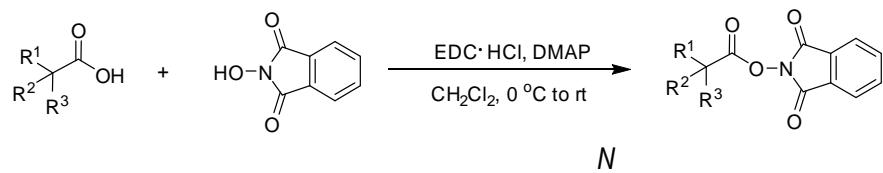
C

d

e



Section 2. General procedure for preparation of NHP Esters (Procedure A)



in vacuo

Section 3. Reaction setup, general procedure for electrocatalytic arylations in an H-cell

Reaction Setup

Figure S1

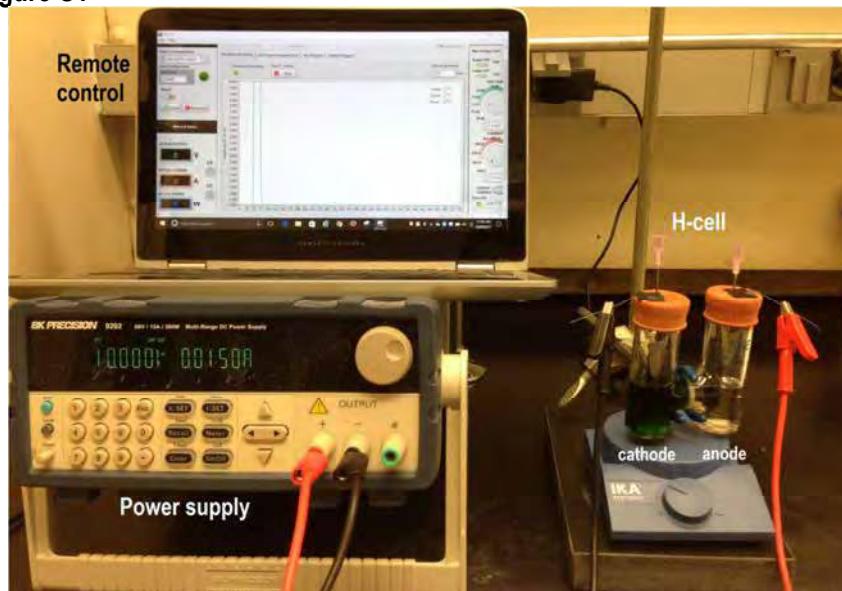
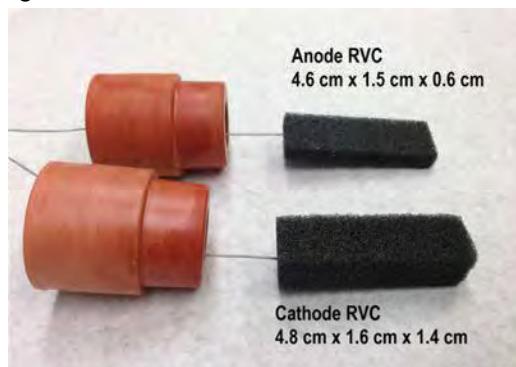
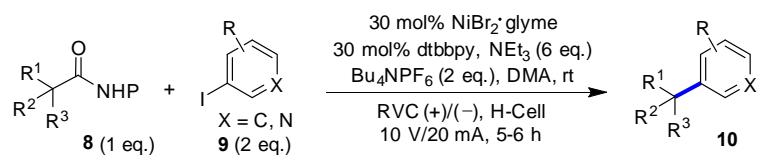


Figure S2



General procedure for electrocatalytic arylations in an H-cell (Procedure B)



◦

N-N

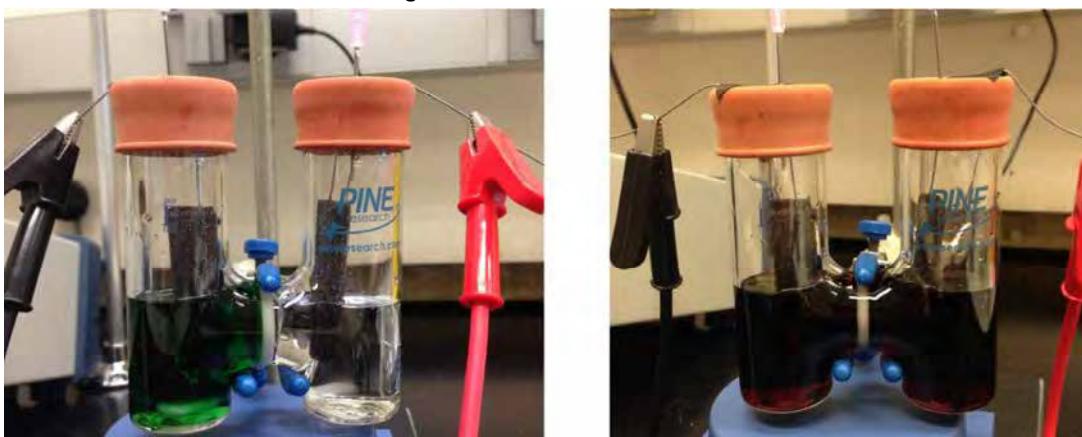
8

cathode

8

in vacuo

Figure S3



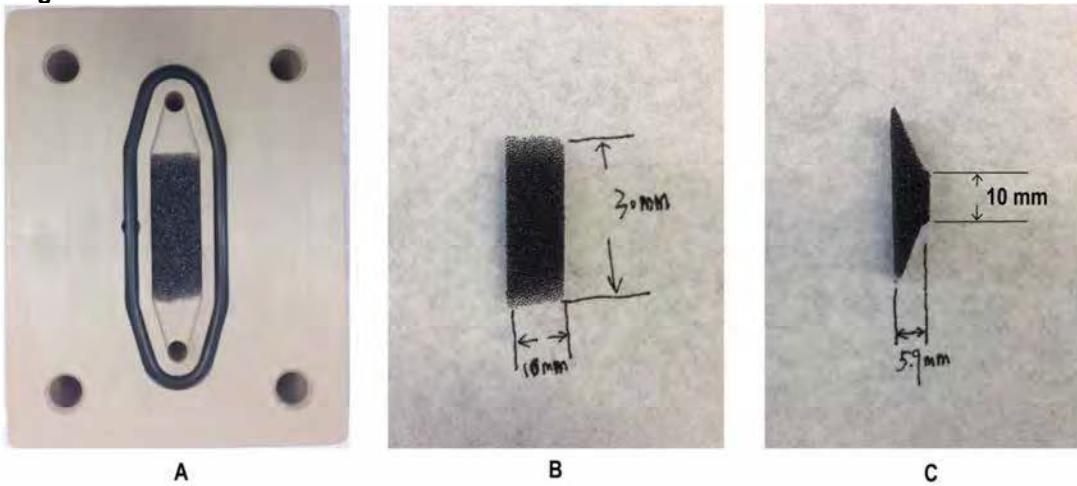
Section 4. Reaction setup, procedure and table of optimization for continuous-flow electro-catalytic arylations

Reaction setup

Figure S4

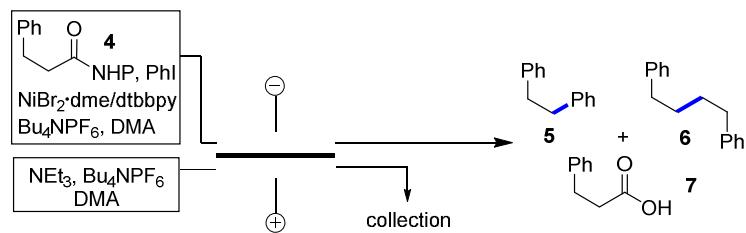


Figure S5



General procedure for flow experiments (Procedure C)

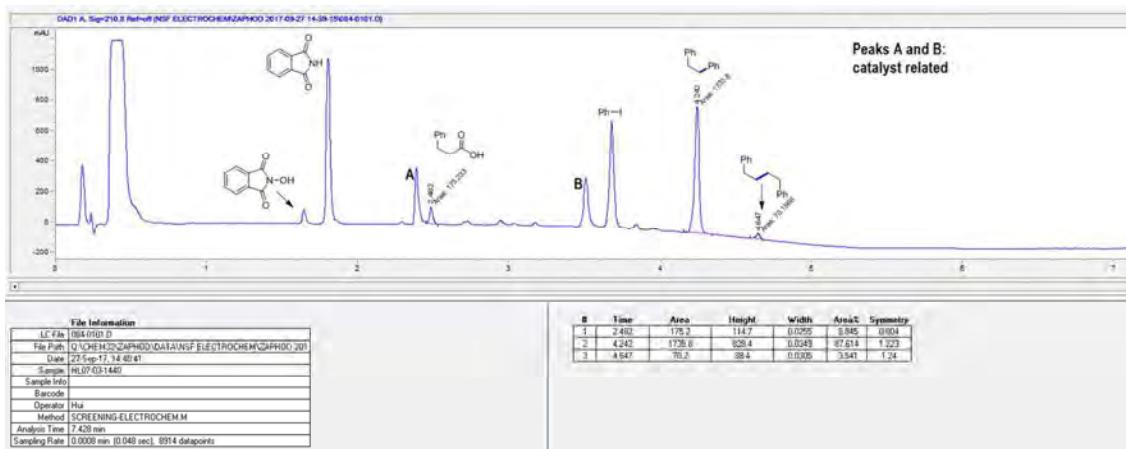
Table of optimization for continuous-flow electro-catalytic arylations



c

d

Representative HPLC chromatogram of reaction mixture in flow (Table S2, entry 12)



Section 5. Cyclic voltammetry studies

Figure S6



Figure S7

4

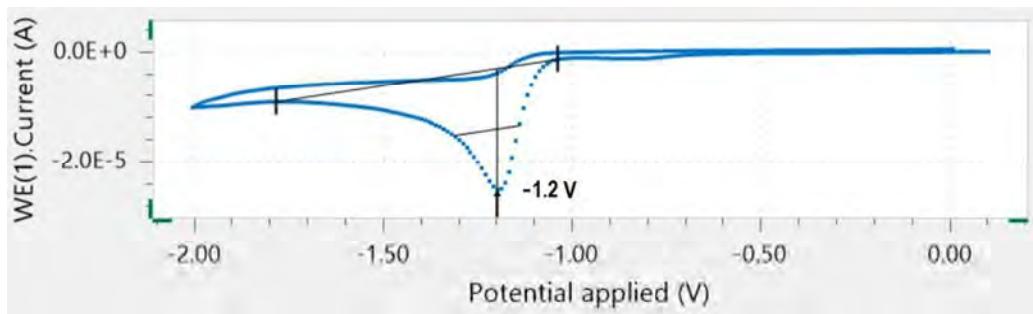


Figure S8

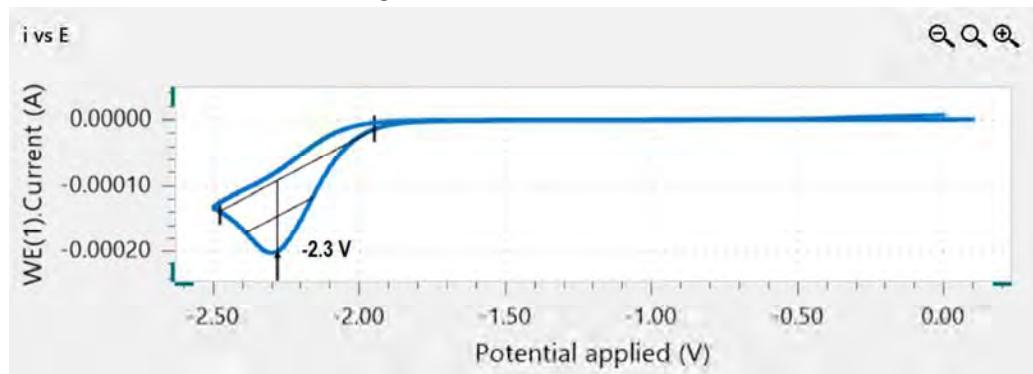
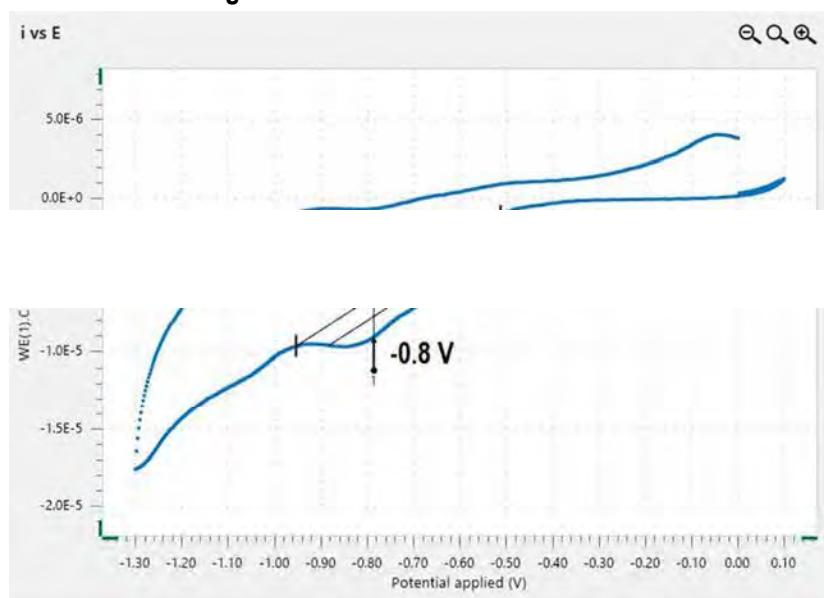
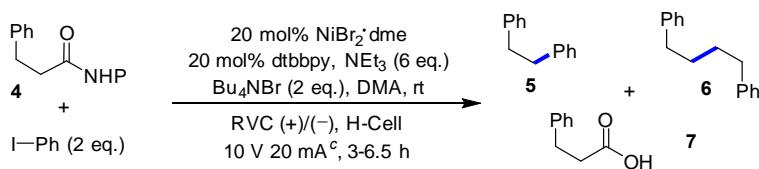


Figure S9



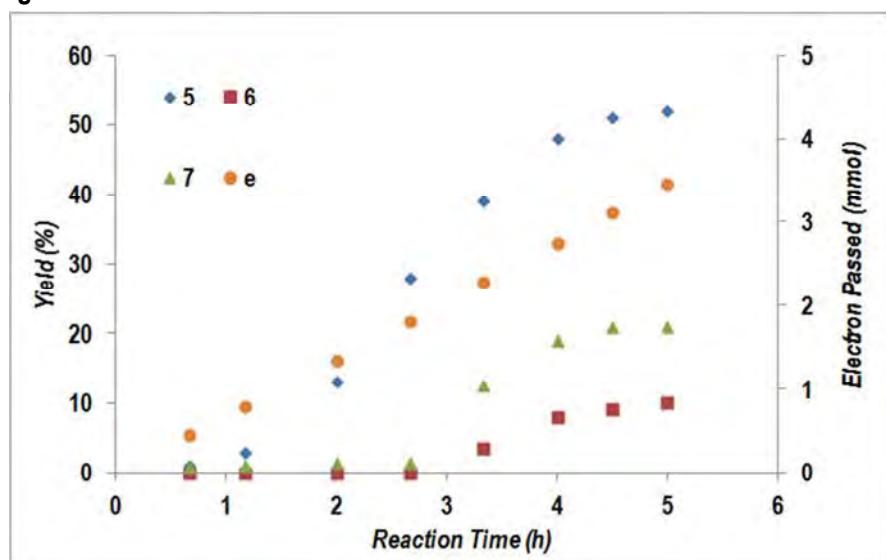
Section 6. Reaction kinetics study



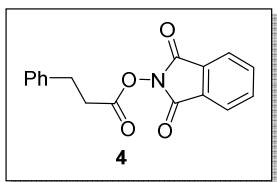
$$\mu \quad \quad \quad \mu$$

Table S3

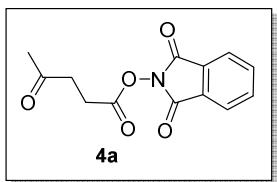
Figure S10



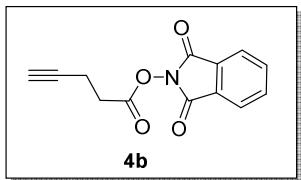
Section 7. Characterization data for NHP esters

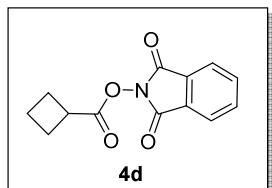
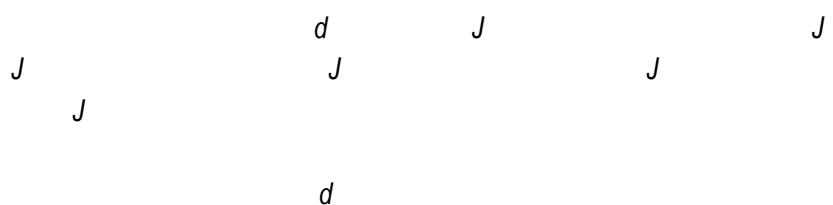
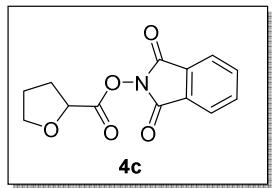
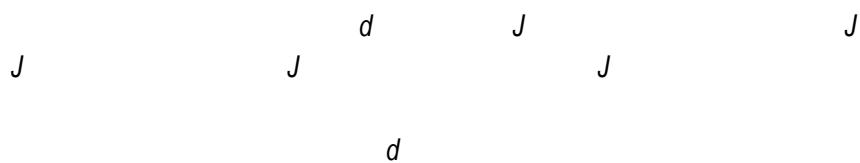


J *d* *J* *J*
 d

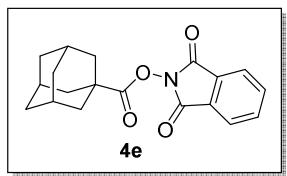


d *J* *J*
 d





d

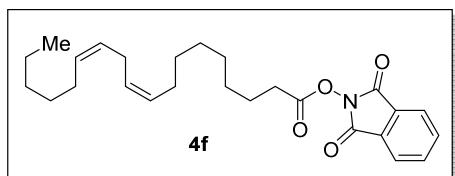


d

J

J

d



J

d

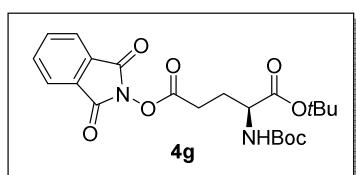
J

J

J

J

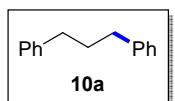
d



tert
N
N,N'

J *d* *J* *J*
 J *d*

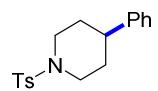
Section 8. Characterization data for coupling products



μ

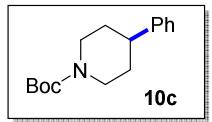
d *J*

d



d *J* *J* *J*

d

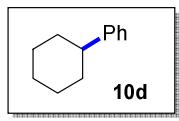


μ

d *J* *J* *J*

d

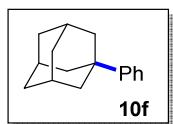
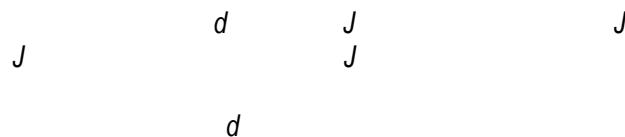
7



μ

d

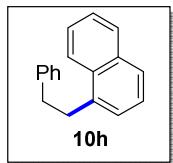
μ



μ

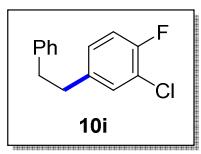


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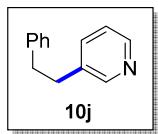


μ

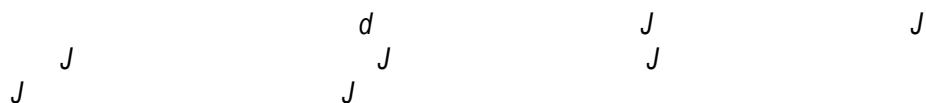
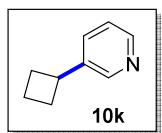




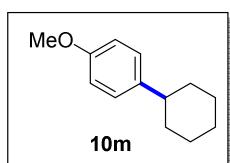
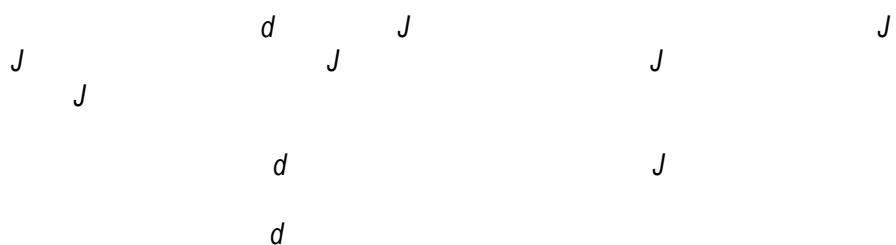
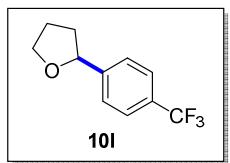
μ

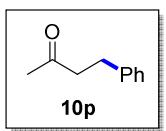
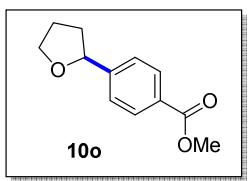


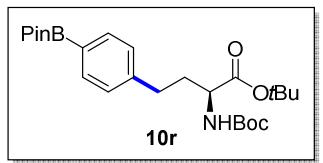
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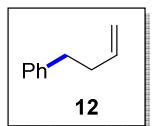
d







L



μ

