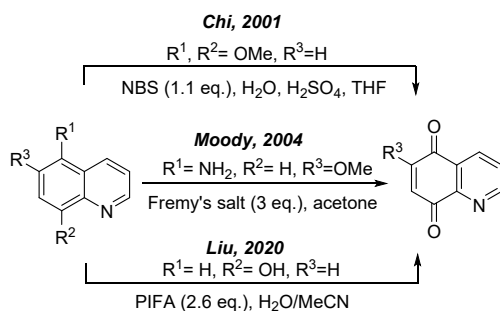
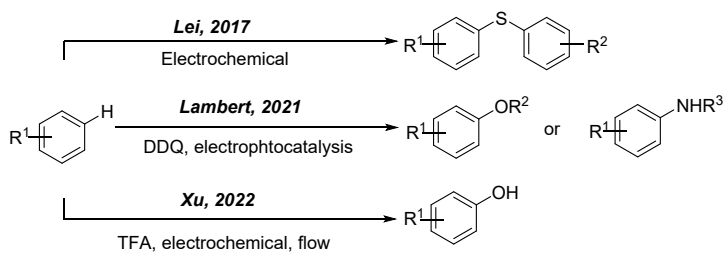


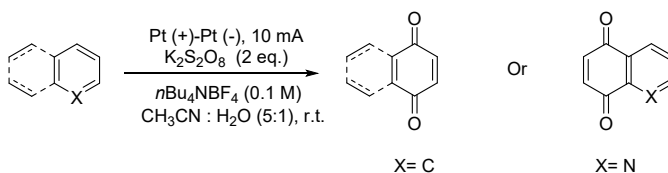
(a) Examples of synthesis of quinolinedione



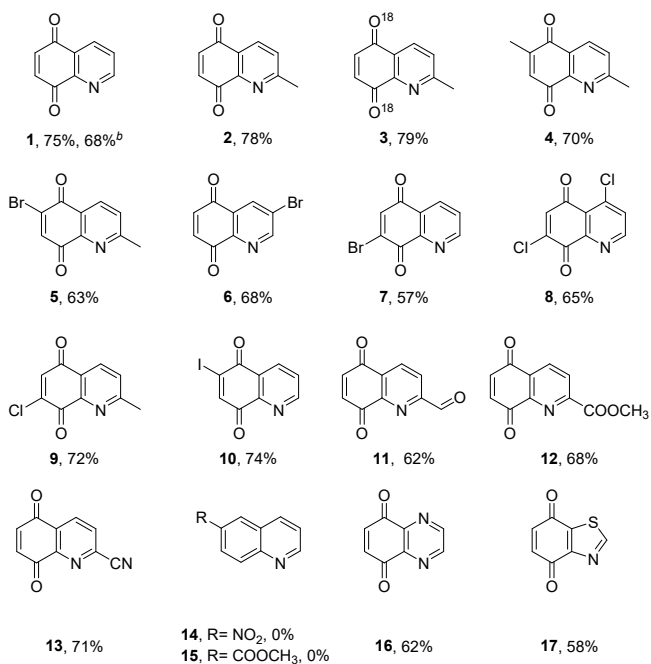
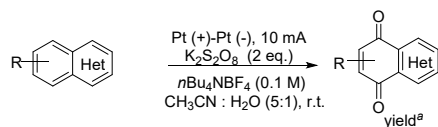
(b) Examples of electrochemical conversion for C(sp²)-X bond

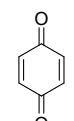
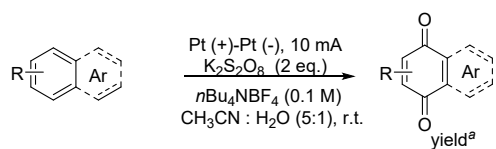


(c) This work

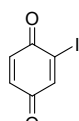


- Direct electrochemical oxidation of C-H bonds
- Oxidation of aromatic and heteroaromatic rings

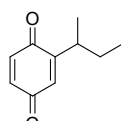




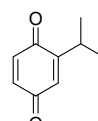
18, 56%



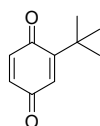
19, 56%



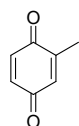
20, 58%



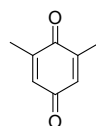
21, 30%



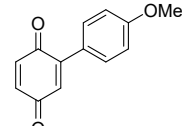
22, 38%



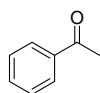
23, 63%^b



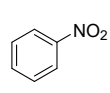
24, 36%^c



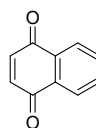
25, 53%^g



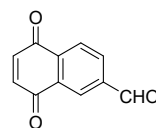
26, 0



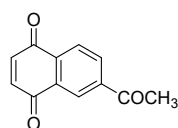
27, 0



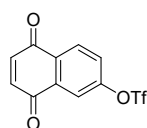
28, 40%^d, 57%^e, 37%^f



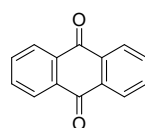
29, 62%



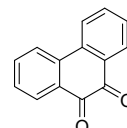
30, 67%



31, 54%



32, 68%



33, 56%

