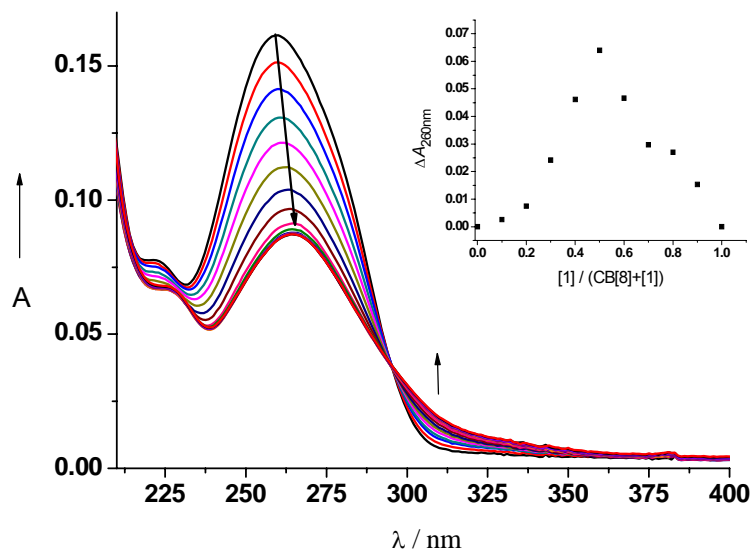


## Supporting Information

### Redox-Induced Unusual Partner Radical Formation and Its Dynamic Balance with Radical Dimer in Cucurbit[8]uril

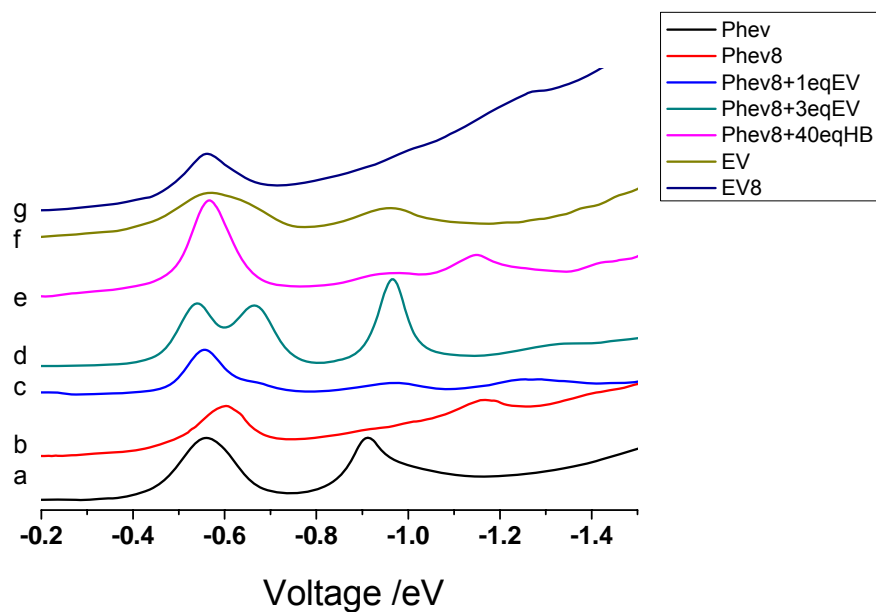
Tongyan Zhang, Shiguo Sun,\* Fengyu Liu, Jiangli Fan, Yi Pang, Licheng Sun\* and Xiaojun Peng\*



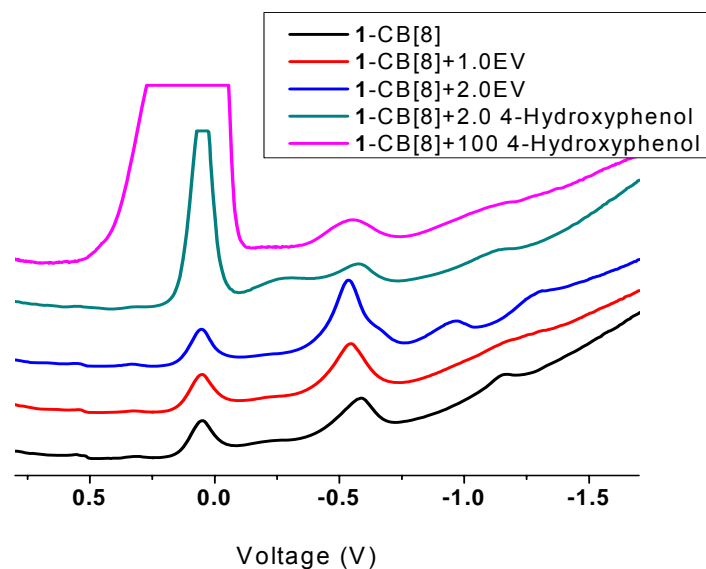
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**Figure S1.** Absorption spectra in water solution (0.1 M NaCl) in the presence of increasing concentrations of CB[8] (0-1.3 equiv). The concentration of **1** was 10  $\mu\text{M}$ . Insert: The Job-plot curve determined from UV difference absorption spectra. The total concentration of **1** and CB[8] is 25  $\mu\text{M}$ .

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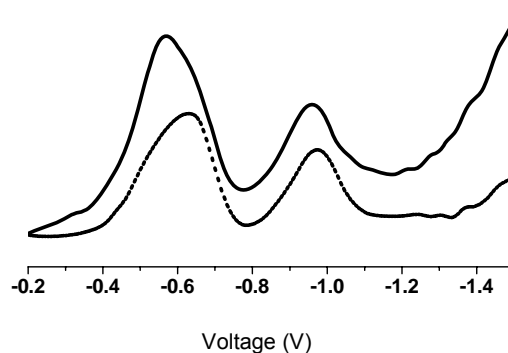


**Figure S2.** Differential pulse voltammograms (DPV) of complex **1** and EV with and without the presence of CB[8] in 0.1 M (pH = 7) phosphate buffer solution, a) compound **1** alone (0.4 mM), b) **1**+CB[8] (1:1), c) **1**+CB[8]+EV (1:1:1), d) **1** (1:1:3), e) **1**+CB[8]+HP (1:1:40), f) EV alone (0.4 mM), and g) EV+CB[8] (1:1). The scan rate is 25 mVs<sup>-1</sup>.

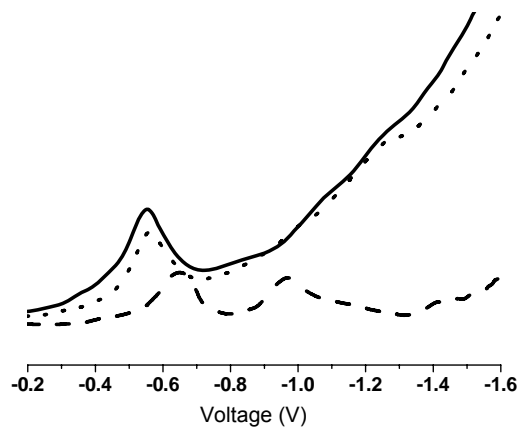


**Figure S3.** DPV of complex 1-CB[8] ( 0.4 mM, black), 1:1 mixture of 1-CB[8] and EV (red), 1:2 mixture of 1-CB[8] and EV (blue), 1:2 mixture of 1-CB[8] and 4-hydroxyphenol (cyan) and 1:100 mixture of 1-CB[8] and 4-hydroxyphenol (pink) .

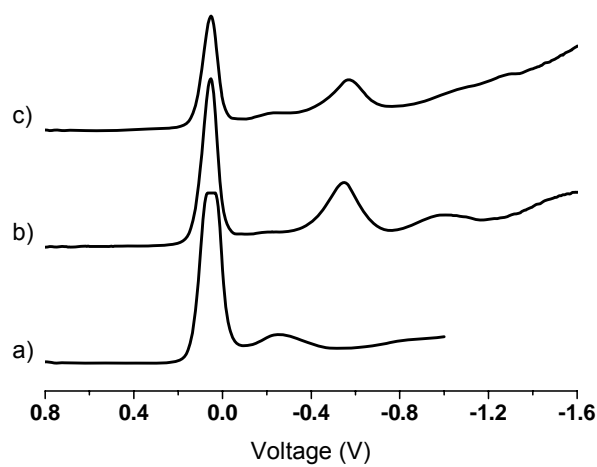
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**Figure S4.** DPV of EV (0.4 mM, solid line) and in the presence of 100 equiv of 4-hydroxyphenol (dash line).



**Figure S5.** DPV of a) 1:1 mixture of EV and CB[8] (0.4 mM) (solid line), b) 1:1:2 mixture of EV,CB[8] and 4-hydroxyphenol (dot line), and c) 1:1:100 mixture of EV,CB[8] and 4-hydroxyphenol (dash line).



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**Figure S6.** DPV of a) 4-hydroxyphenol (0.4 mM), b) 1:1 mixture of 4-hydroxyphenol and EV, and c) 1:1:1 the mixture of 4-hydroxyphenol, EV, and CB[8].