

Electronic Supplementary Information for

Sustainable, inexpensive and easy-to-use access to the super-reductant $e_{\text{aq}}^{\bullet-}$ through 355nm photoionization of the ascorbate dianion — an alternative to radiolysis or UV-C photochemistry

Marcel Brautzsch, Christoph Kerzig and Martin Goetz

1 UV-Vis absorption spectra of the groundstate of important species in this work

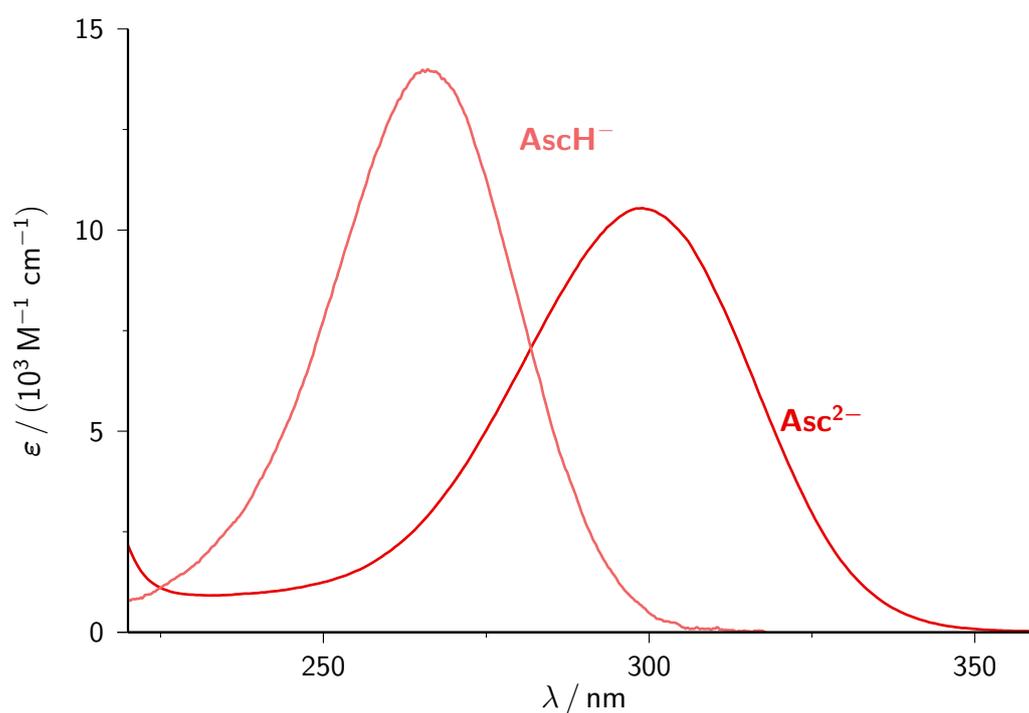


Figure S1: UV-Vis groundstate absorption spectra of the ascorbate monoanion (AscH^- ; pH = 7.4) and the ascorbate dianion (Asc^{2-} ; pH = 12.7). The latter has been corrected for remaining AscH^- (about 11 %).

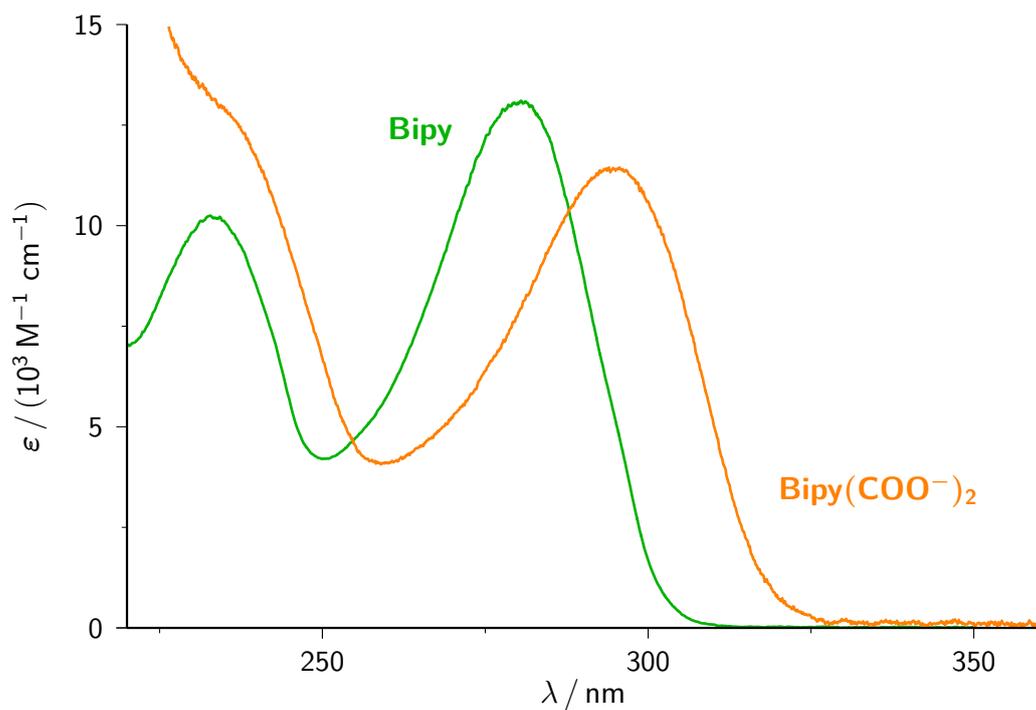


Figure S2: UV-Vis groundstate absorption spectra of 2,2'-bipyridine (Bipy) and 2,2'-bipyridine-4,4'-dicarboxylate (Bipy(COO⁻)₂).

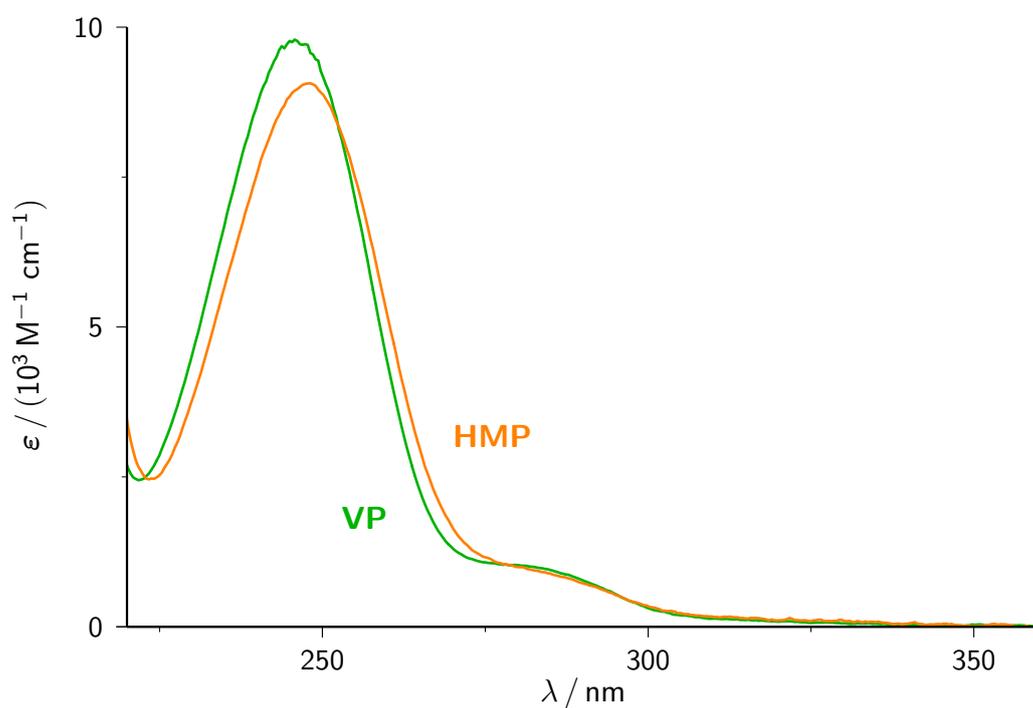


Figure S3: UV-Vis groundstate absorption spectra of valerophenone (VP) and 2-hydroxy-2-methylpropiophenone (HMP).

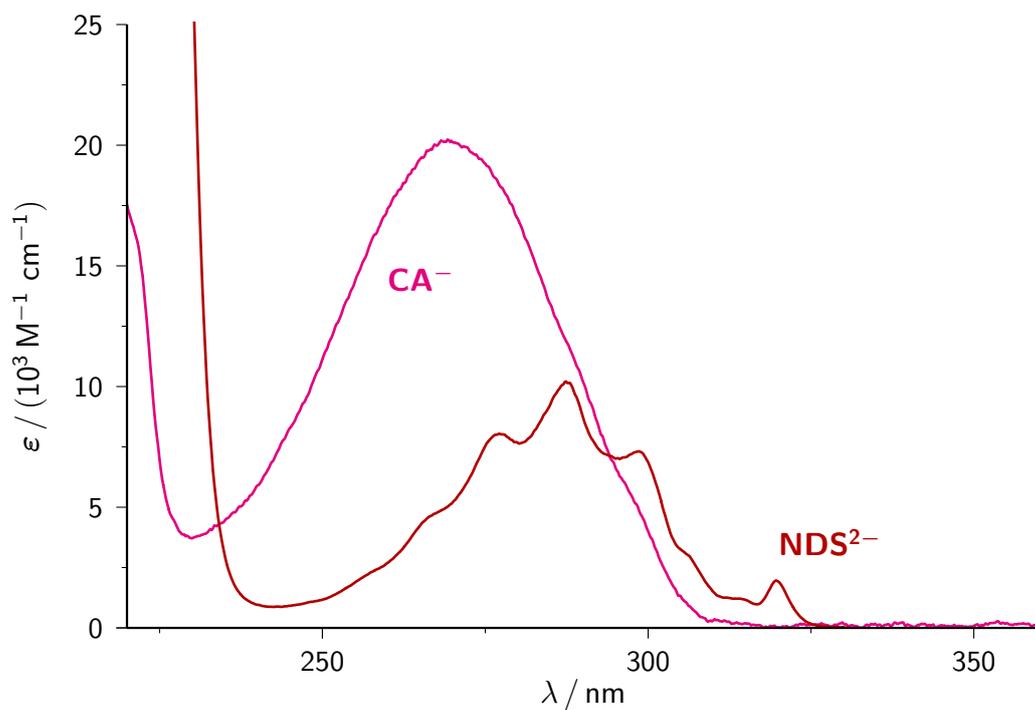


Figure S4: UV-Vis groundstate absorption spectra of 1,5-naphthalene disulfonate (NDS^{2-}) and cinnamate (CA^-).

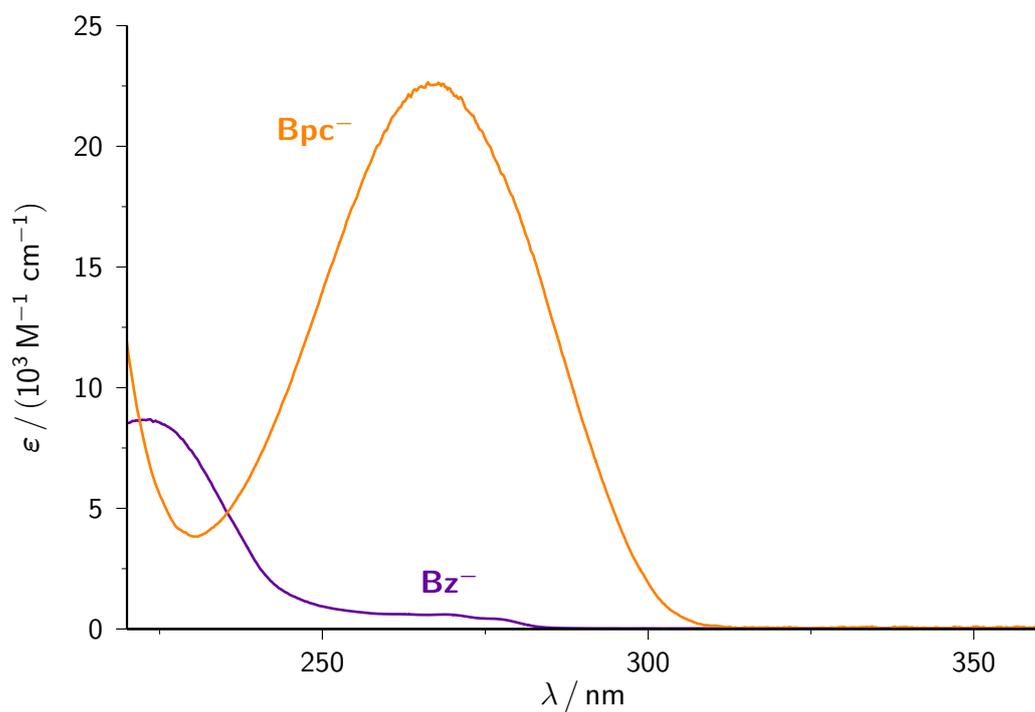


Figure S5: UV-Vis groundstate absorption spectra of benzoate (Bz^-) and biphenyl-4-carboxylate (Bpc^-).