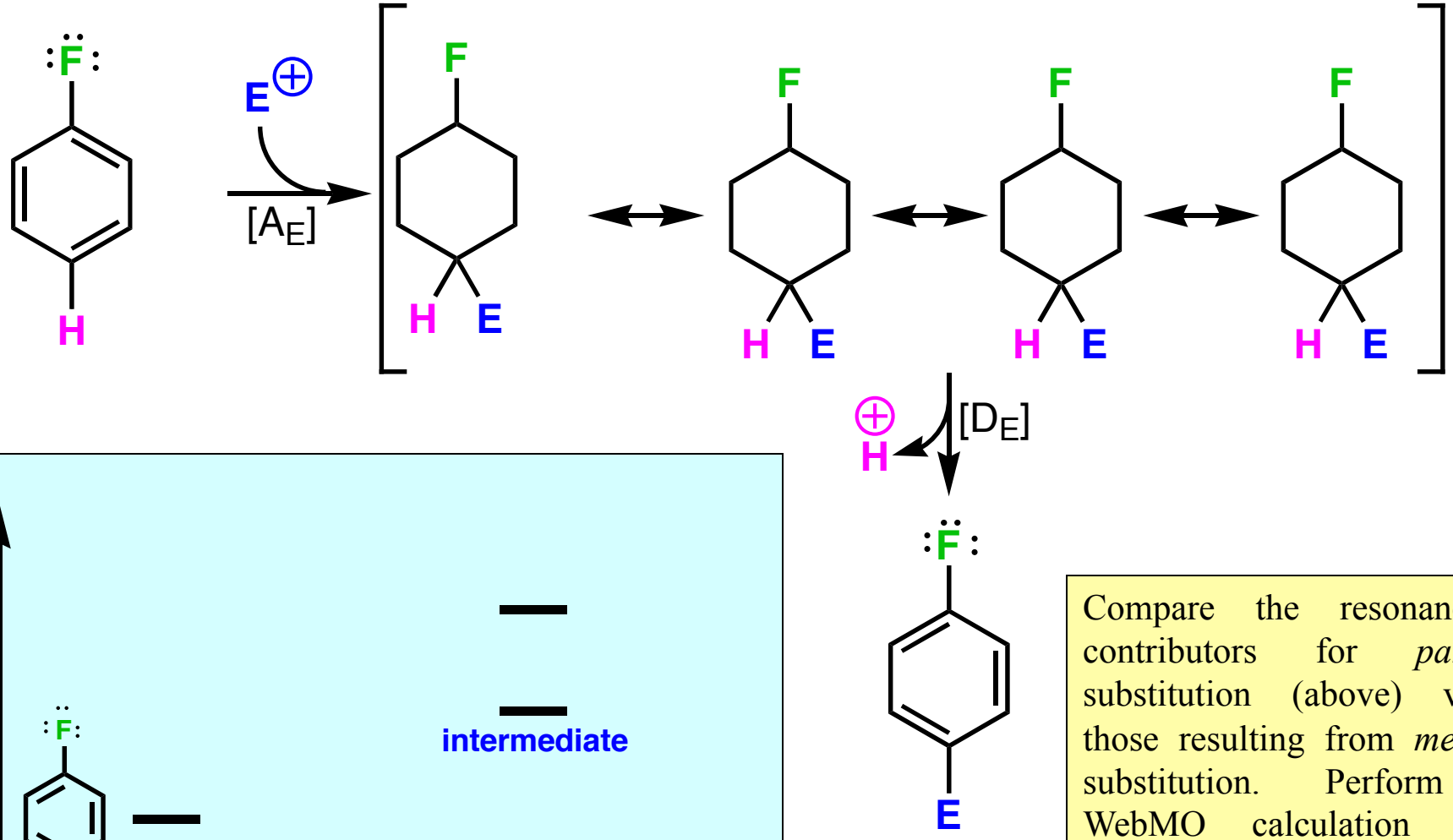
Discussion Problem

Why are halogens ortho / para directors?

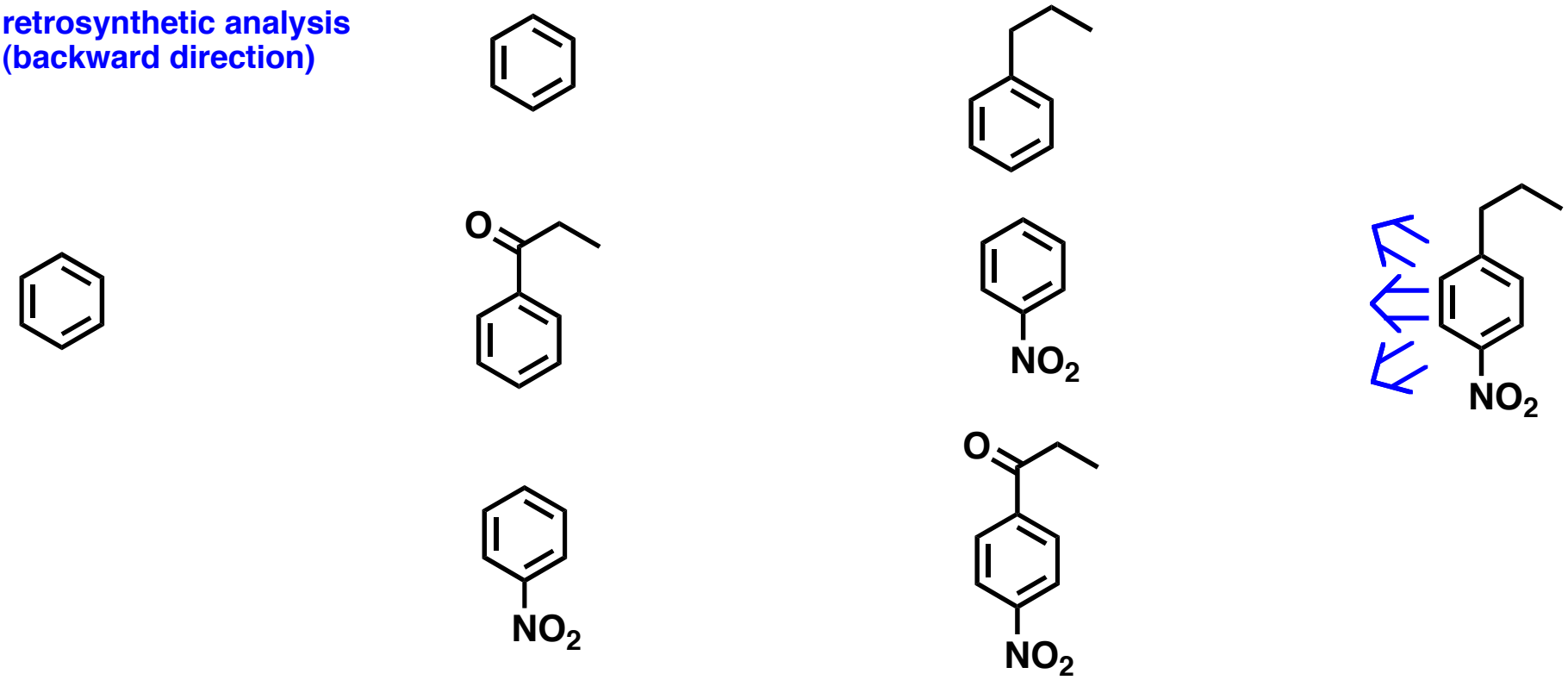


Compare the resonance contributors for *para* substitution (above) vs. those resulting from *meta* substitution. Perform a WebMO calculation to compare the energies of the intermediates. Construct an energy diagram.

Discussion Problem

Multistep Synthesis of Disubstituted Benzenes

retrosynthetic analysis
(backward direction)

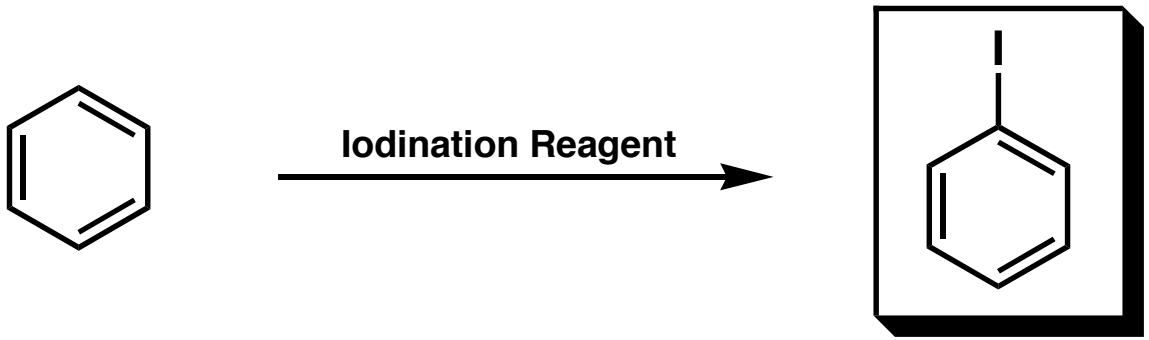


synthesis
(forward direction)

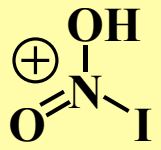
http://wps.prenhall.com/wps/media/objects/725/743034/0078f.html

Discussion Problem

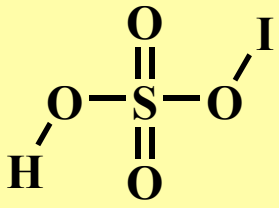
Postulated Iodinating Reagents



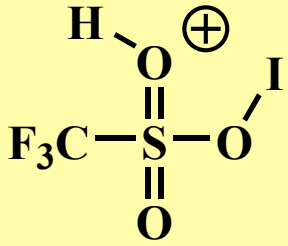
The following are postulated iodinating reagents. Predict which of these is the most powerful iodination reagent. What evidence, computational or otherwise, could you use to support your prediction?



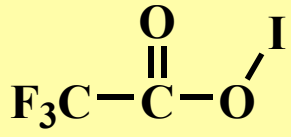
J. Chem. Soc. B
1971, 2264



Tetrahedron
2004, *60*: 9113



J. Org. Chem.
1993, *58*: 3194



Tetrahedron Lett.
2002, *43*: 5047

For more iodination reagents see:

http://www.organic-chemistry.org/synthesis/C1I/iodoarenes.shtm