

#### <sup>1</sup>H NMR spectrum of 3a (top) and acenaphthen equinone monophenylhydrazone (bottom) in $C_6D_6$







### HMQC NMR spectrum of 3a (<sup>13</sup>C enriched) in C<sub>6</sub>D<sub>6</sub>



### HMBC NMR spectrum of 3a (<sup>13</sup>C enriched) in C<sub>6</sub>D<sub>6</sub>





2-8

### INADEQUATE 1D spectrum of 3a (<sup>13</sup>C enriched) in $C_6D_6$ ( $J_{cc}$ =57 Hz)



# Selective INADEQUATE 1D spectrum of 3a (<sup>13</sup>C enriched) in $C_6D_6$ (OBS2: 190.9 ppm, $J_{cc}$ =57 Hz)



Selective INADEQUATE 1D spectrum of 3a (<sup>13</sup>C enriched) in  $C_6D_6$  (OBS2: 186.2 ppm,  $J_{cc}$ =57 Hz)



# Selective INADEQUATE 1D spectrum of 3a (<sup>13</sup>C enriched) in C<sub>6</sub>D<sub>6</sub> (OBS2: 44.0 ppm, $J_{cc}$ =77 Hz)



## Selective INADEQUATE 1D spectrum of 3a (<sup>13</sup>C enriched) in $C_6D_6$ (OBS2: 155.1 ppm, $J_{cc}$ =57 Hz)



## Selective INADEQUATE 1D spectrum of the <sup>13</sup>C enriched 3a in C<sub>6</sub>D<sub>6</sub> (OBS2: 151.7 ppm, $J_{cc}$ =57 Hz)



### ES-Mass spectrum (neg.) of 3a

