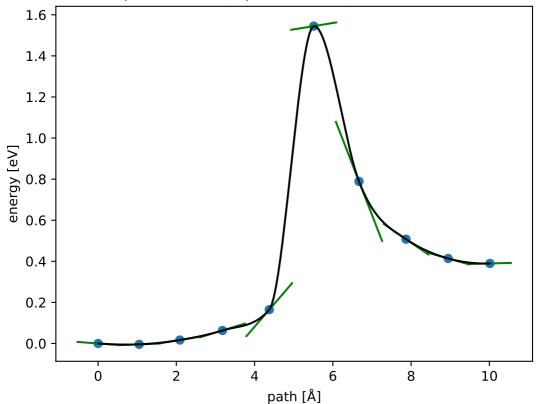
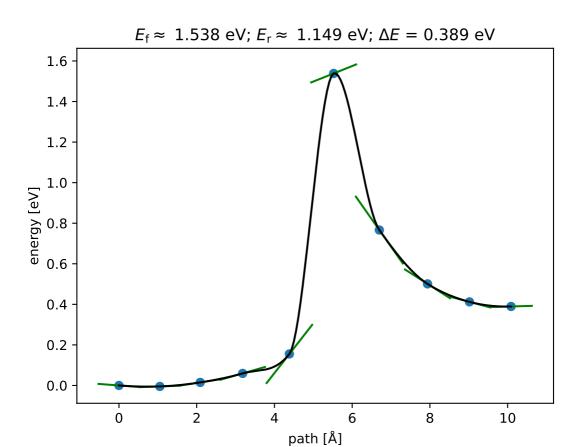


 $E_{\rm f} \approx 1.545 \; {\rm eV}; \, E_{\rm r} \approx 1.155 \; {\rm eV}; \, \Delta E = 0.389 \; {\rm eV}$ 





 $E_{\rm f} \approx 1.532 \; {\rm eV}; E_{\rm r} \approx 1.143 \; {\rm eV}; \Delta E = 0.389 \; {\rm eV}$ 

path [Å]

10

1.6

1.4

1.2

1.0

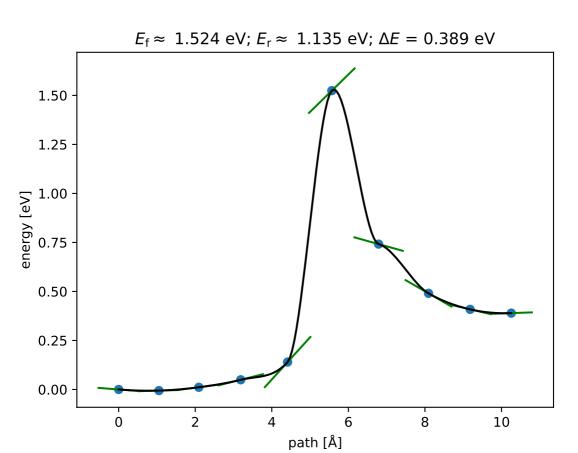
0.6

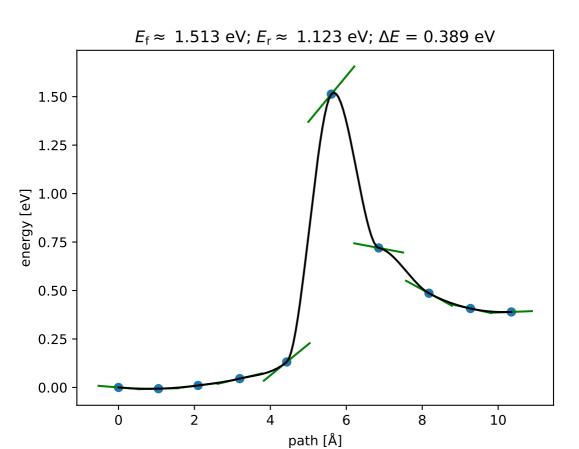
0.4

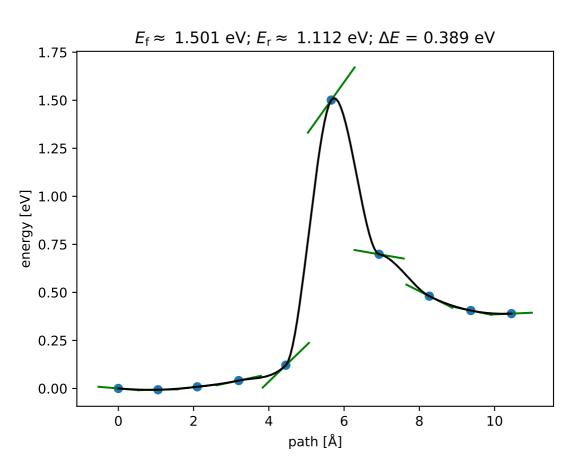
0.2

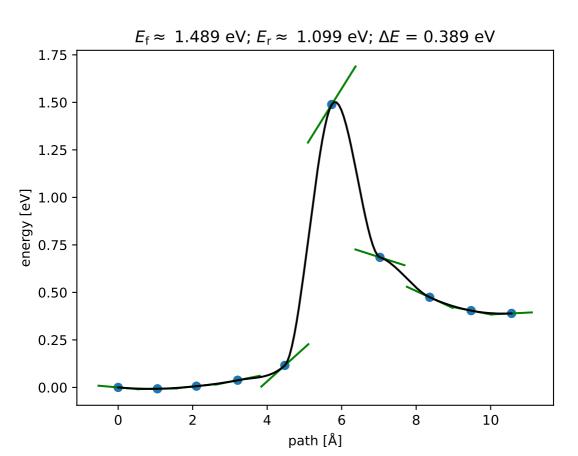
0.0

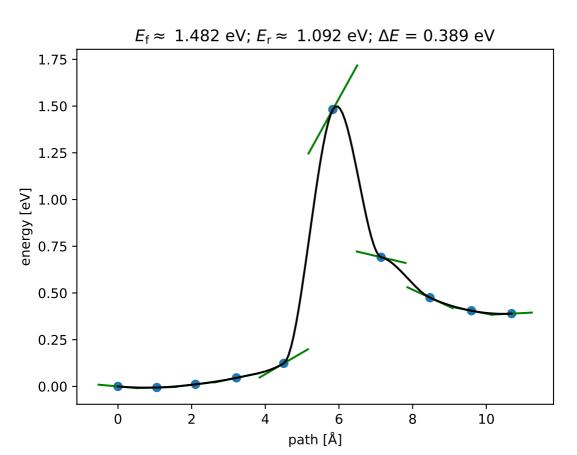
energy [eV] 0.8

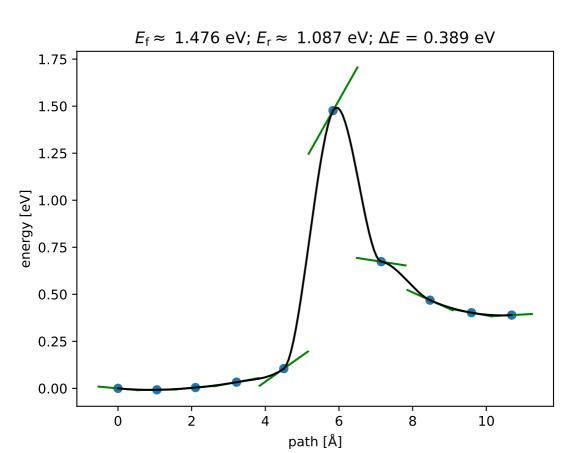


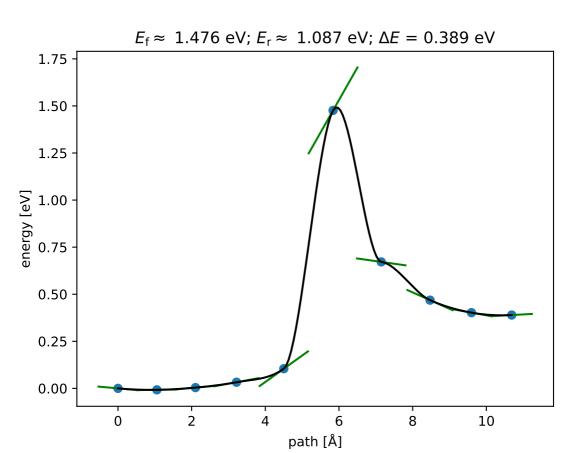


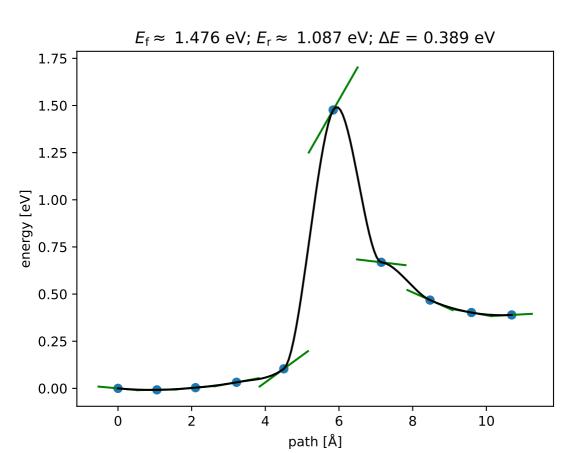


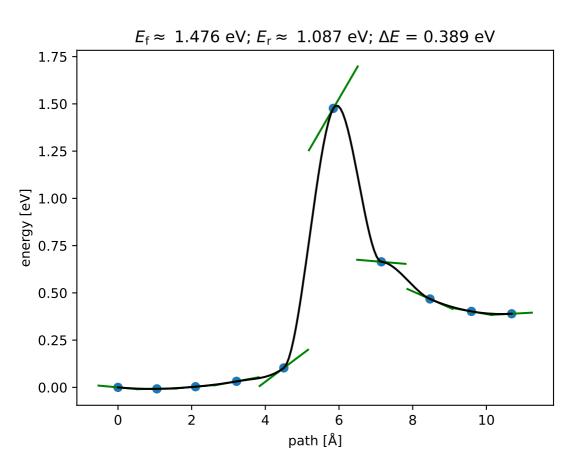


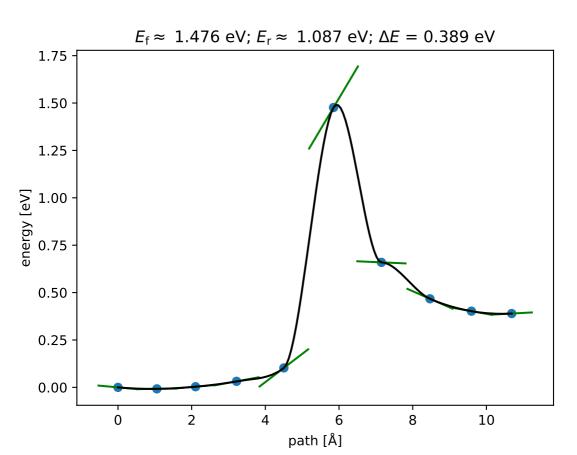


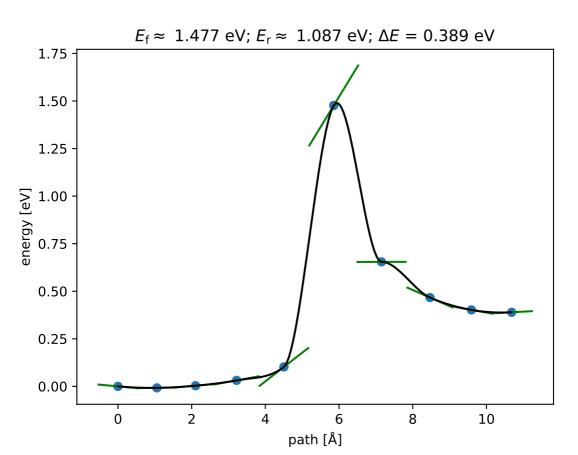


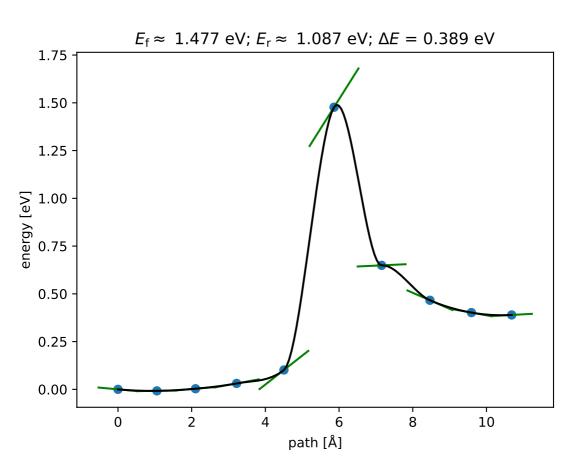


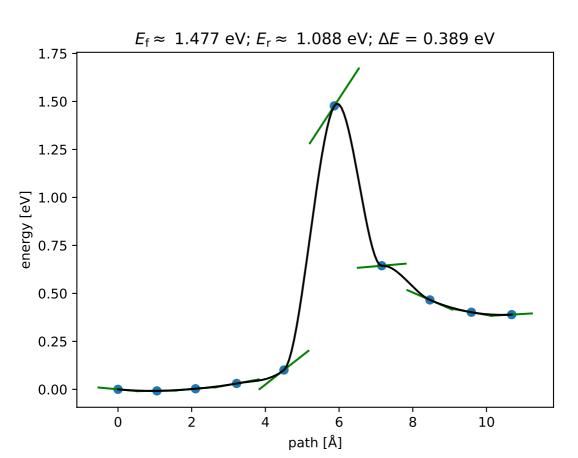


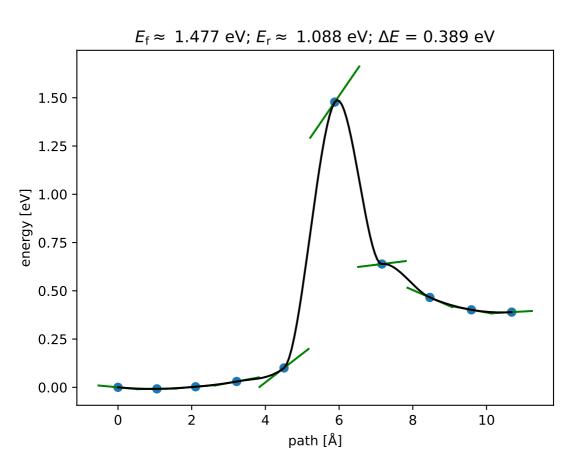


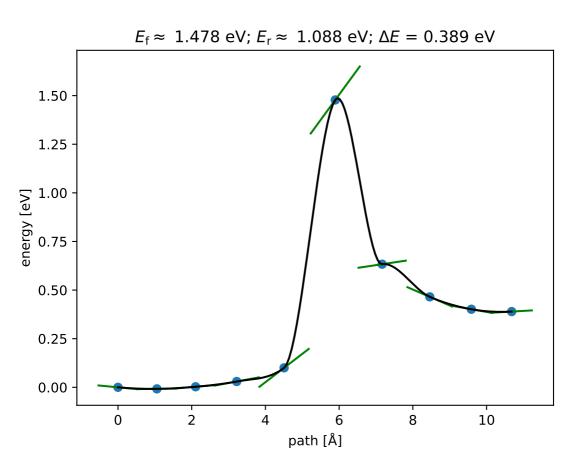


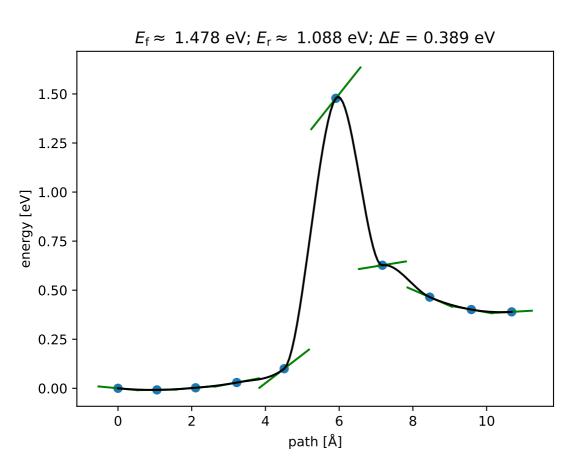


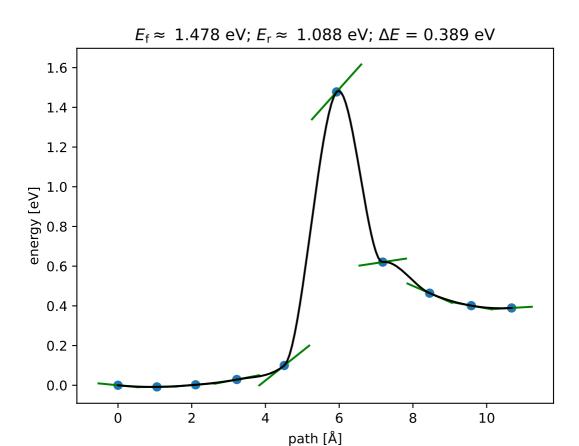


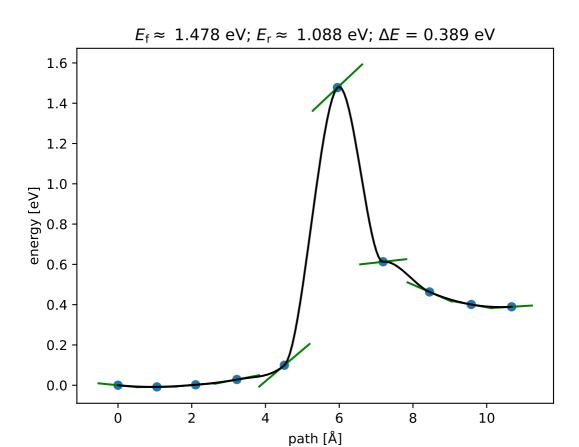


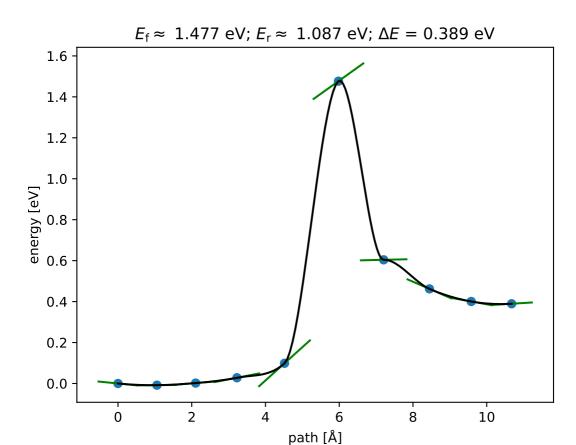


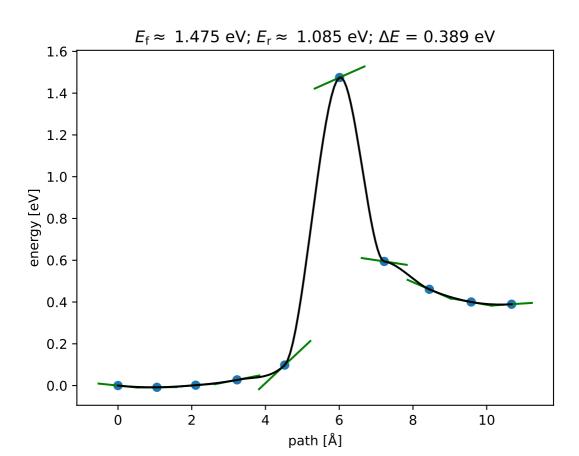


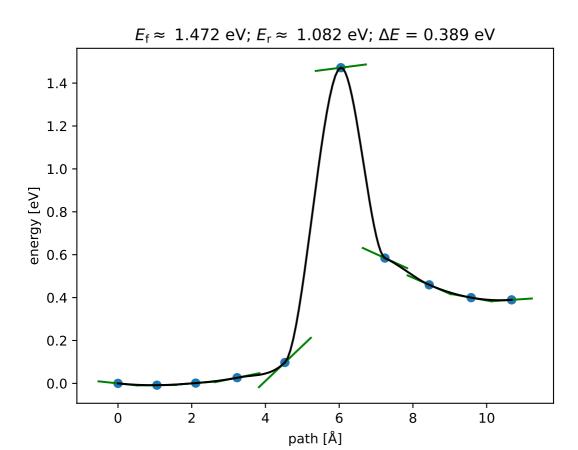


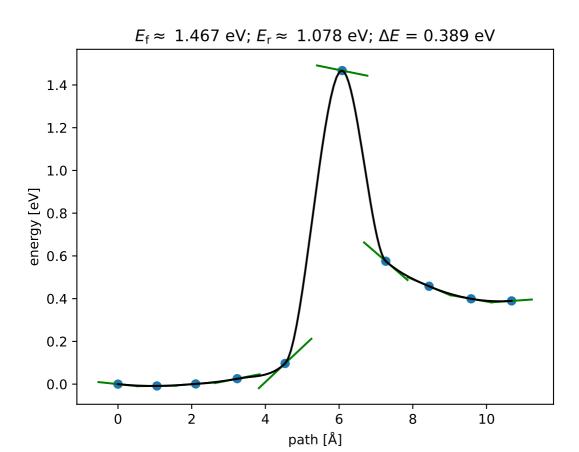


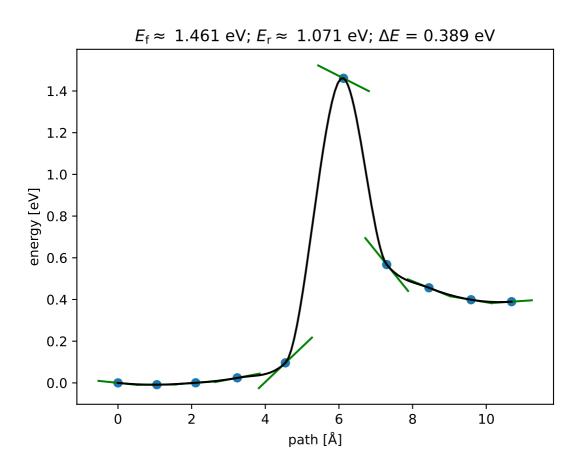


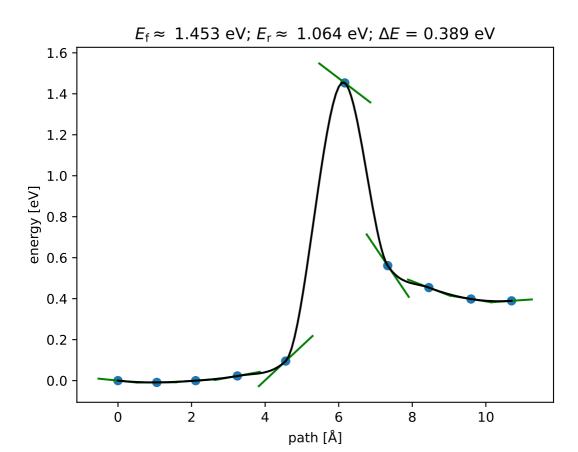


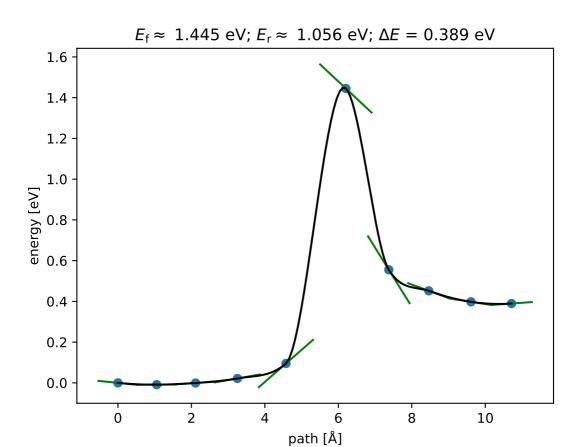


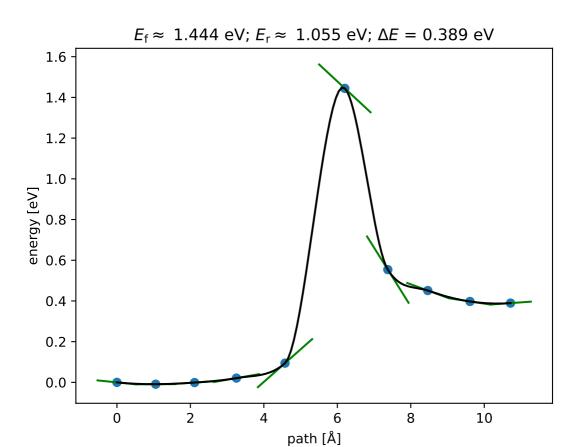


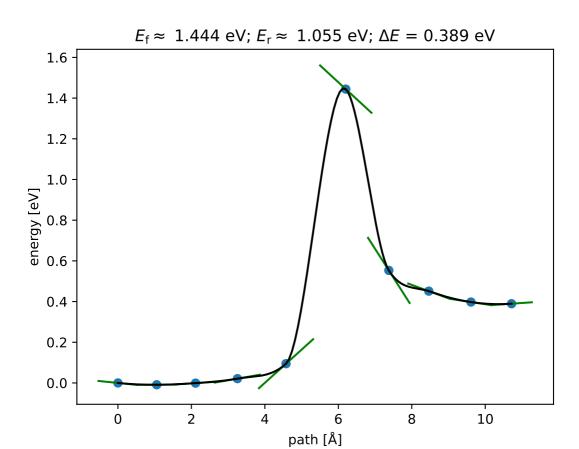


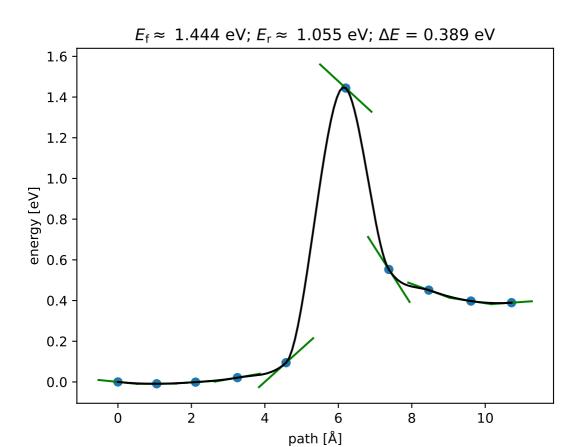


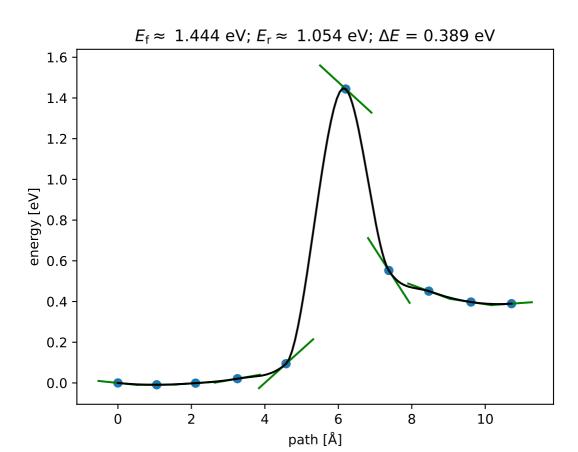


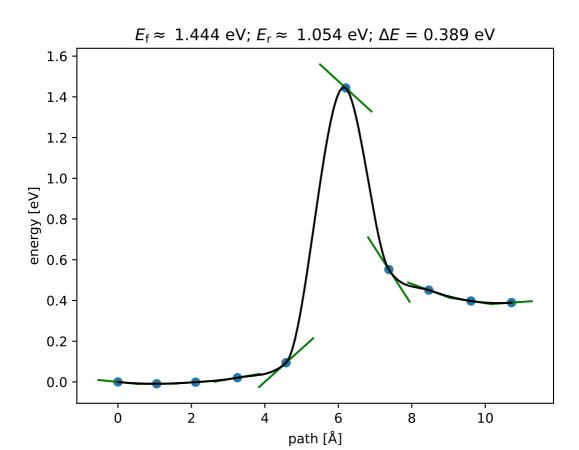


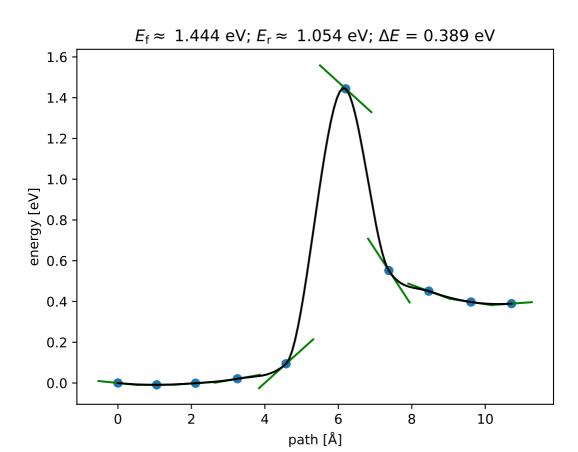


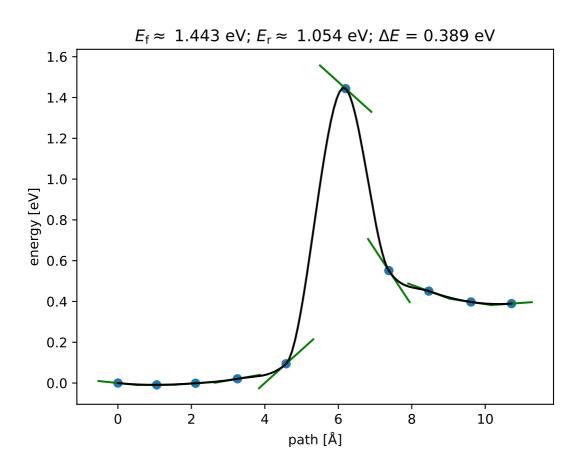


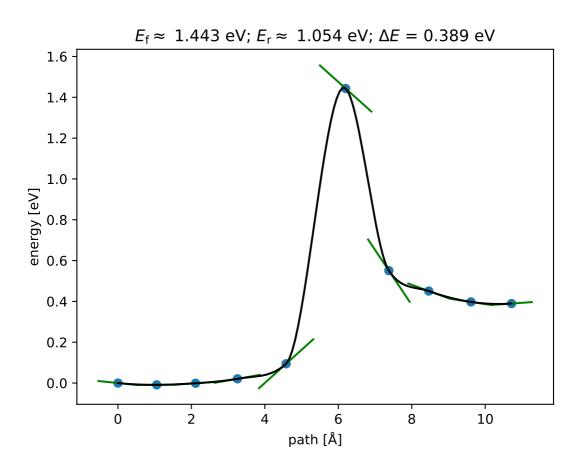


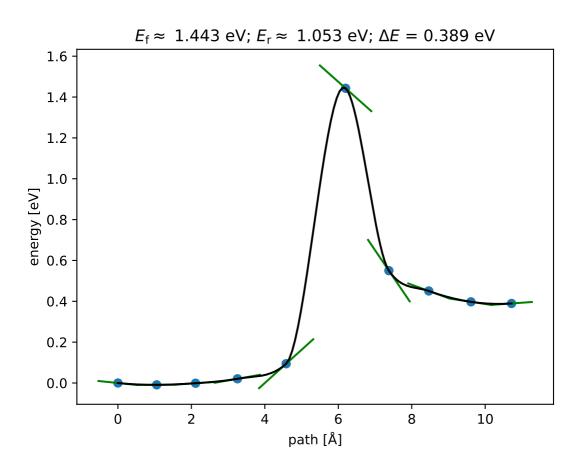


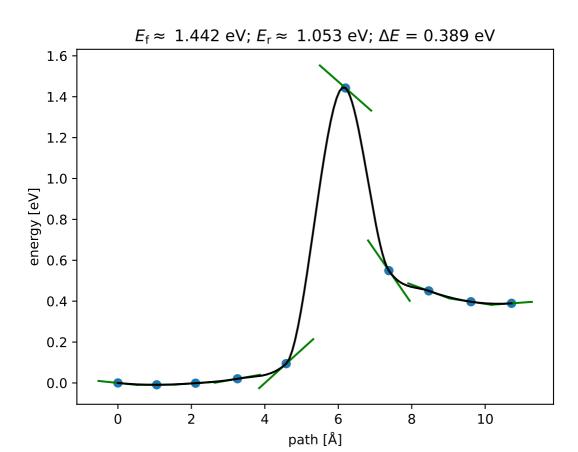


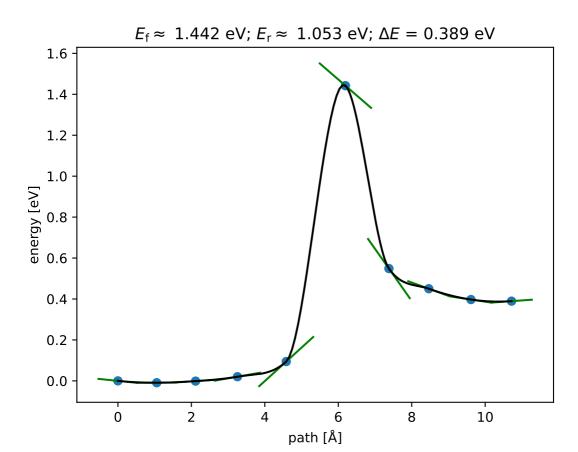


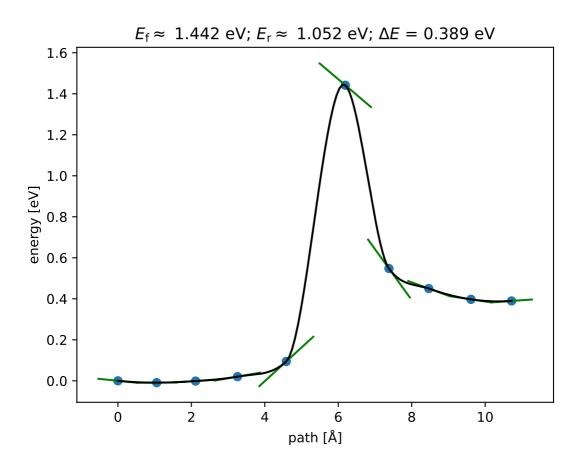


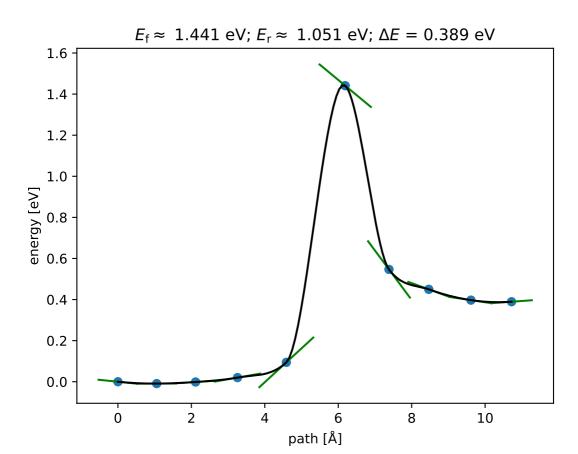


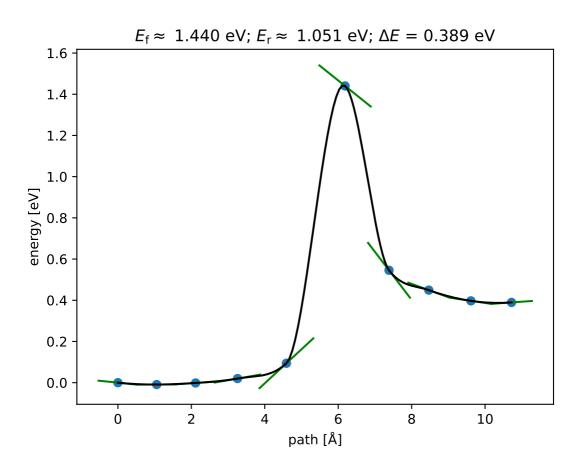


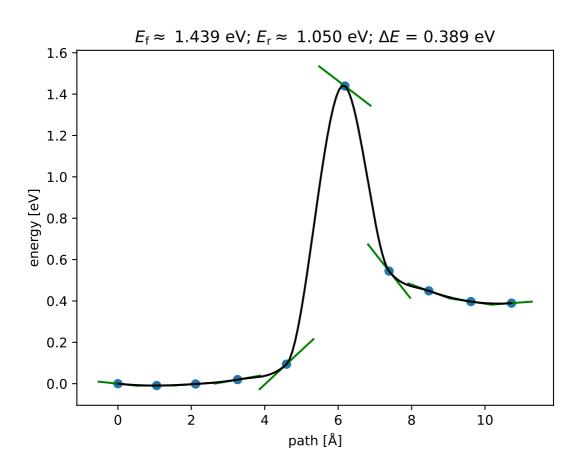


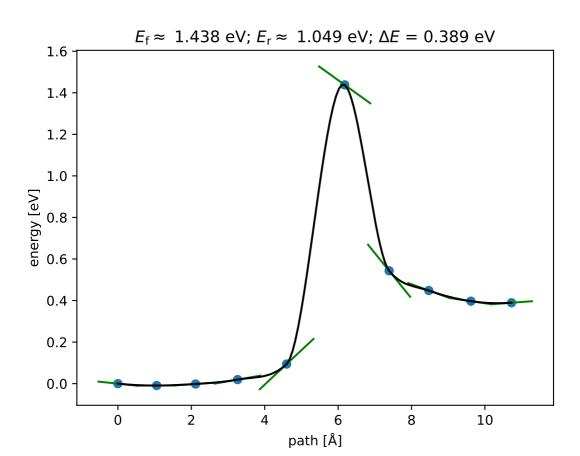


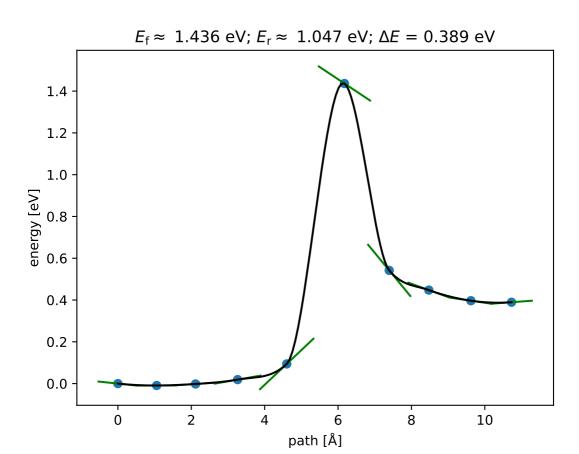


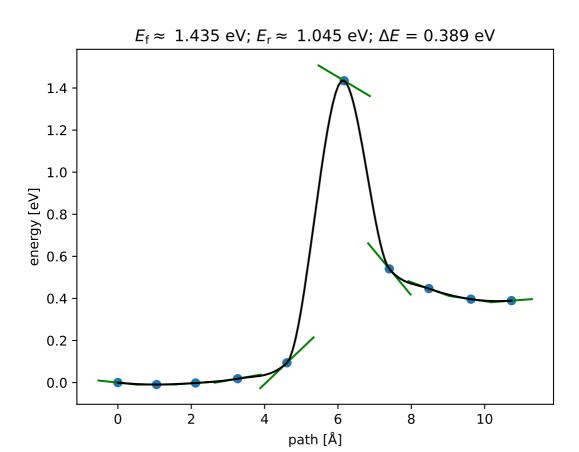


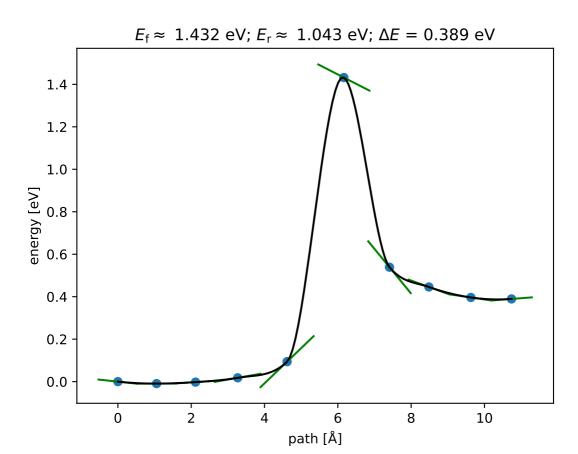


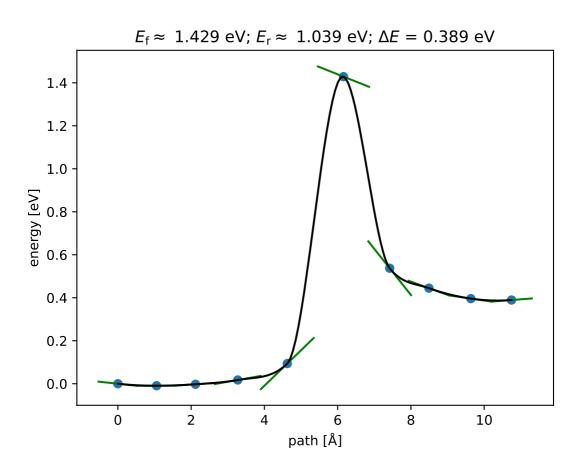


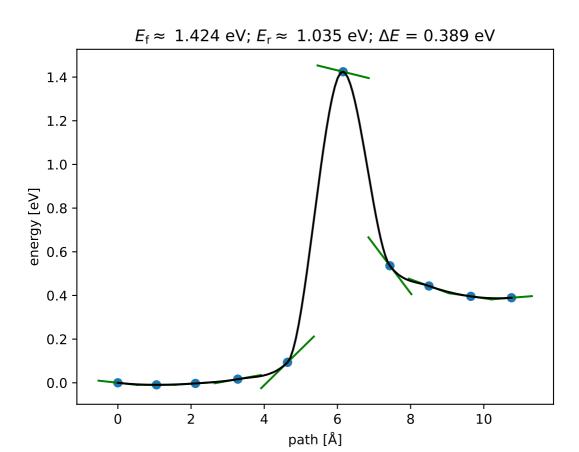


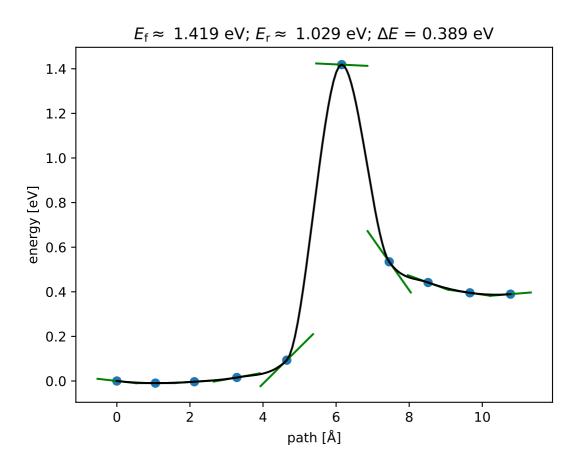


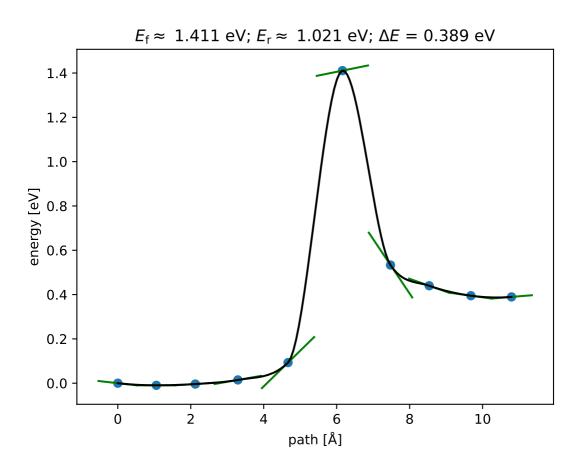


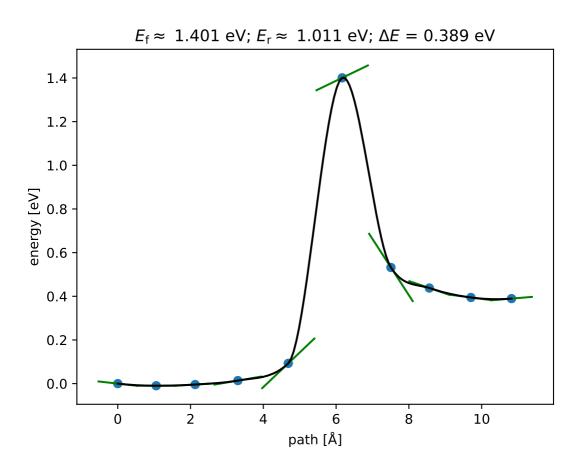


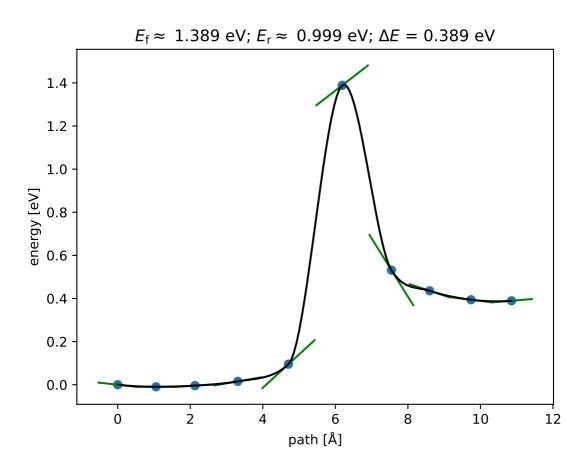


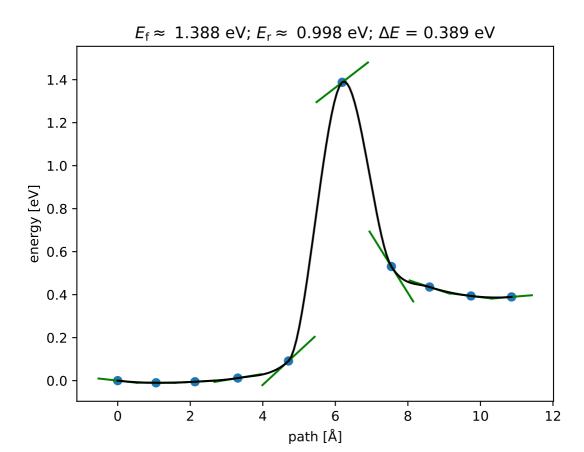


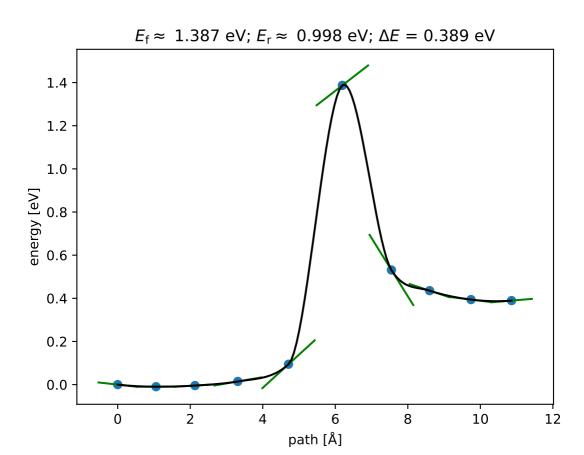


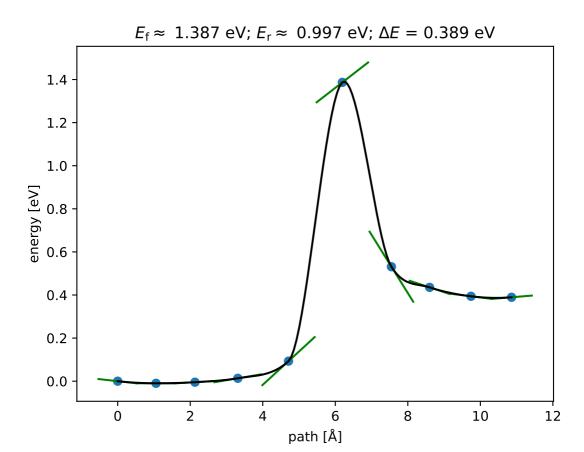


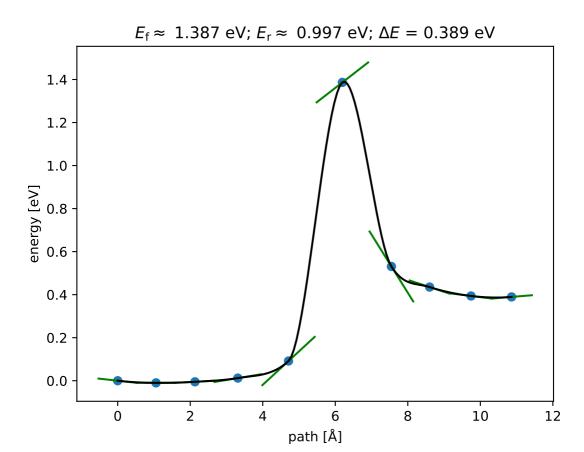


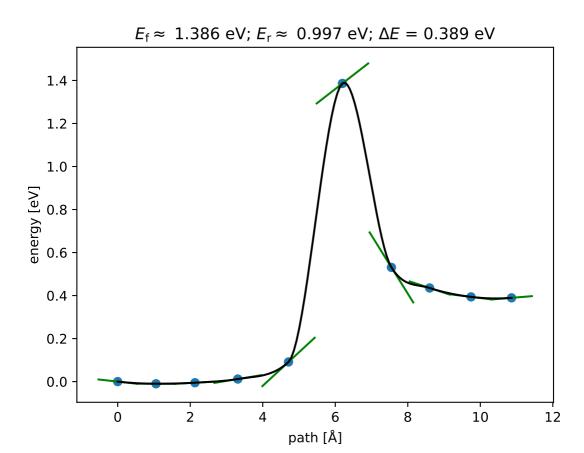


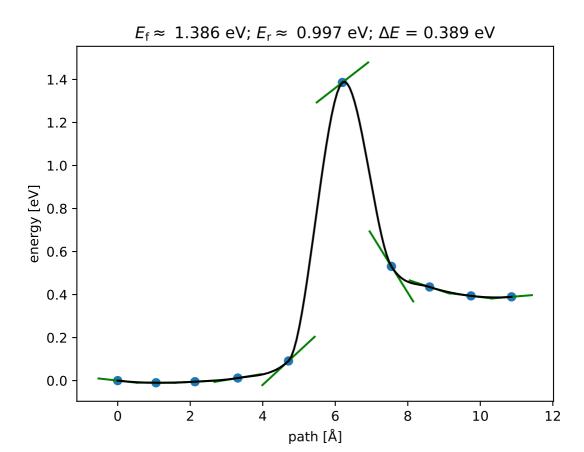


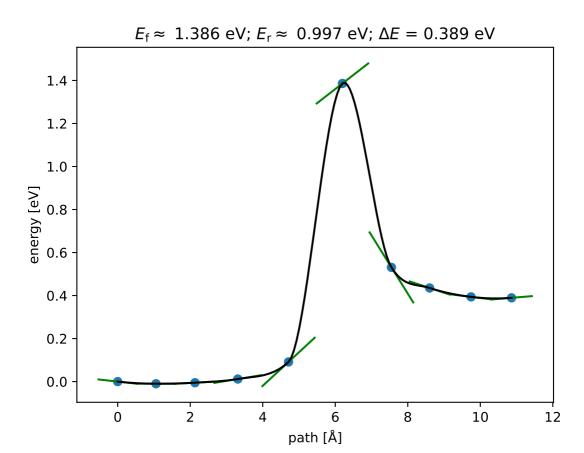


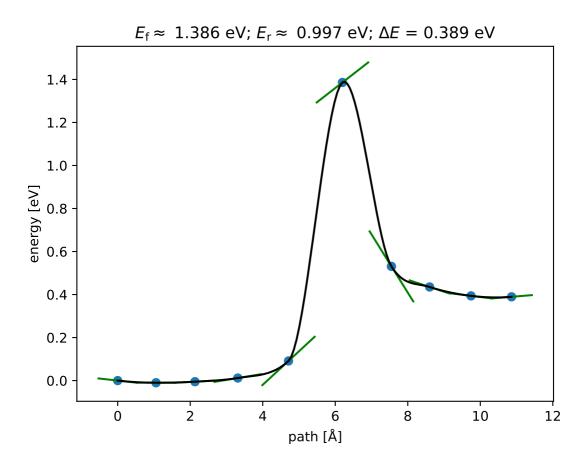


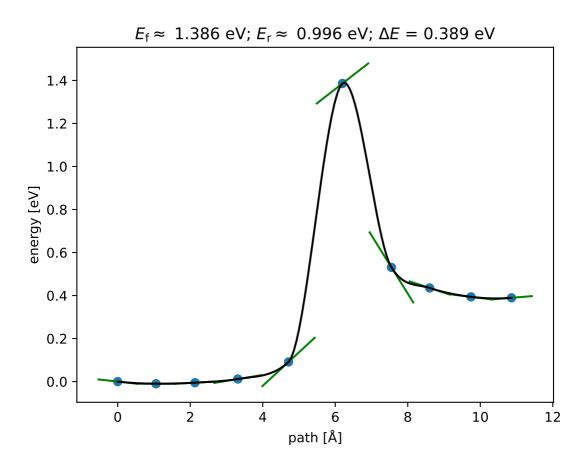


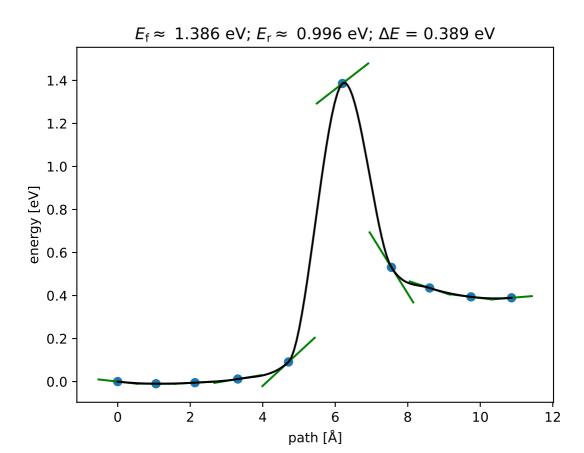


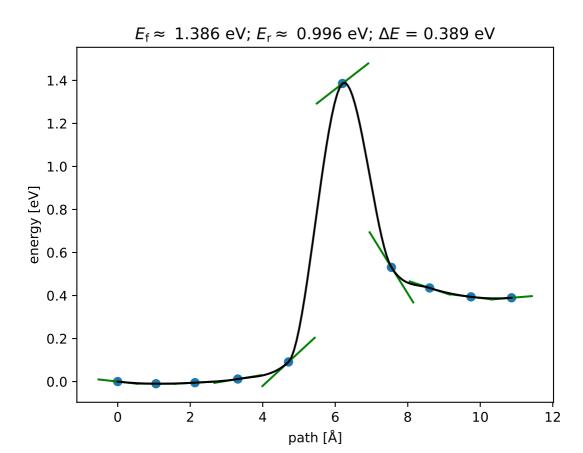


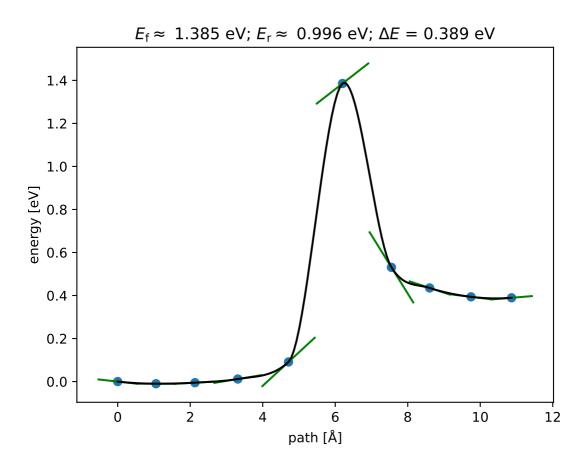


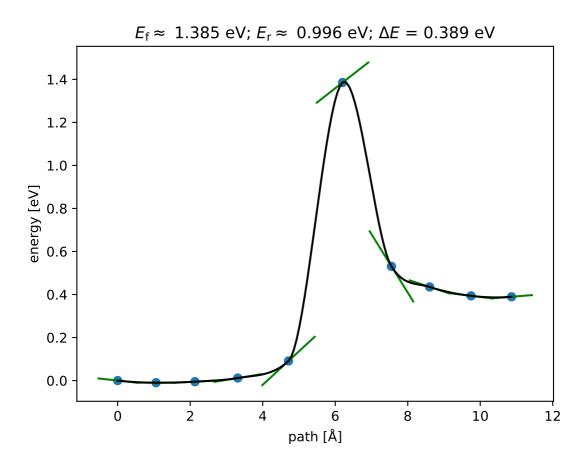


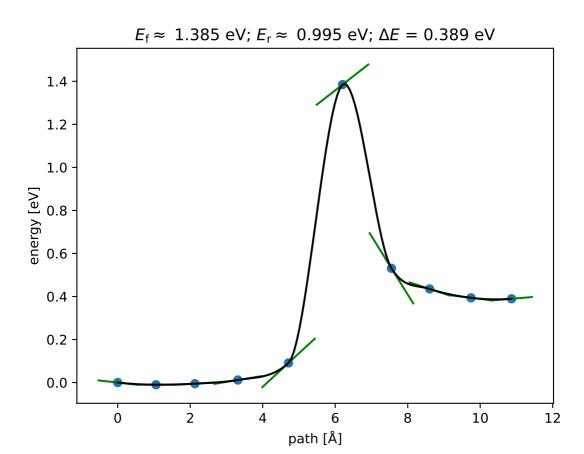


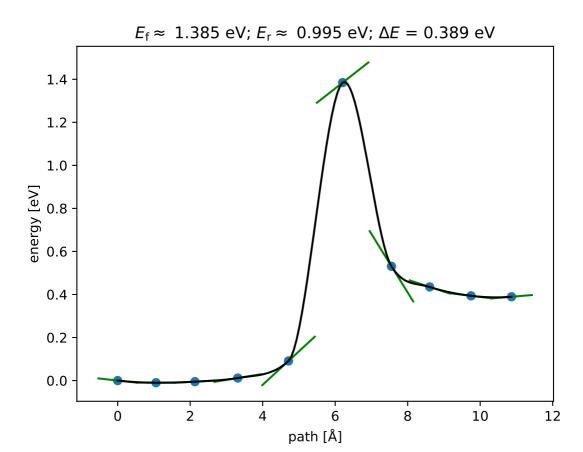


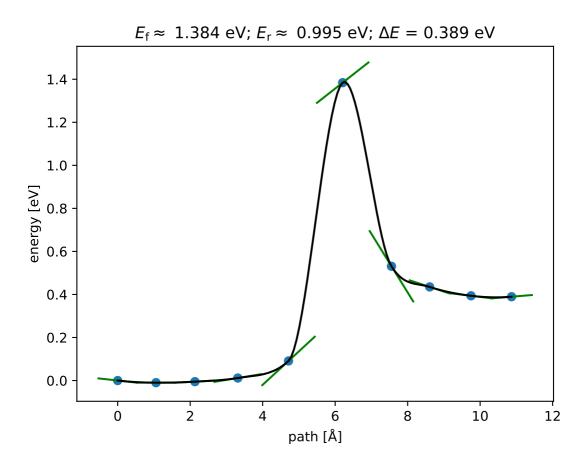


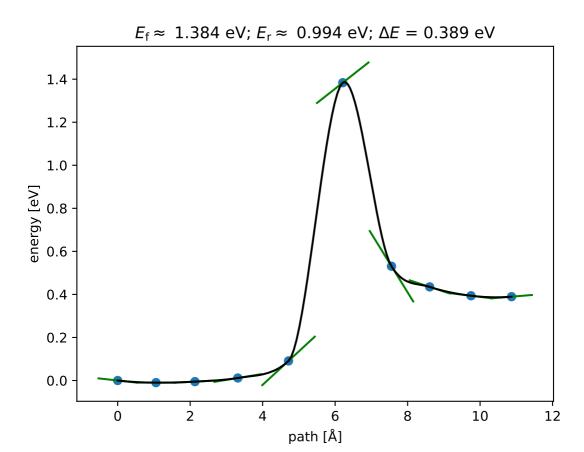


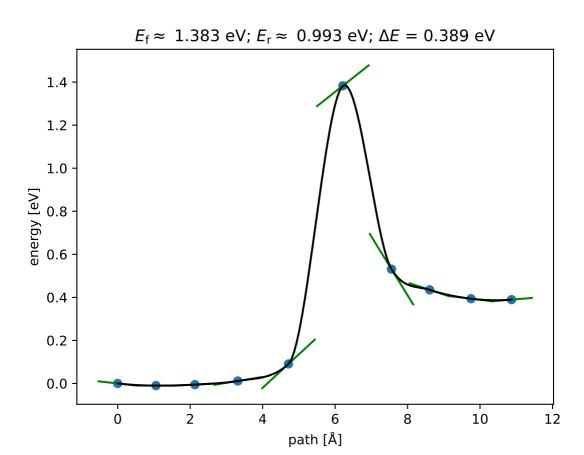


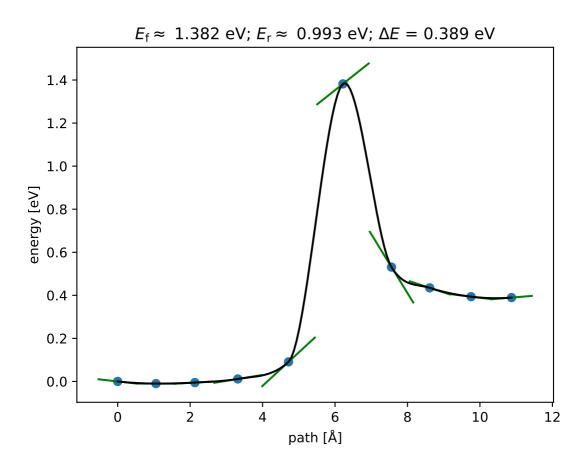


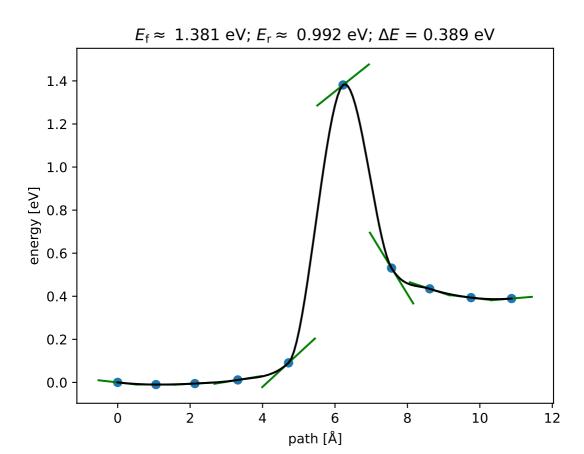


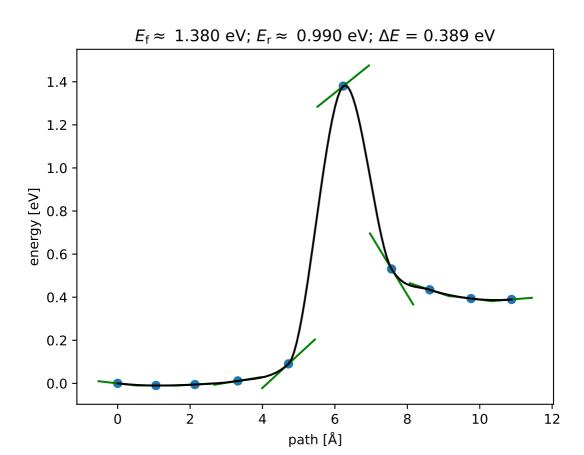


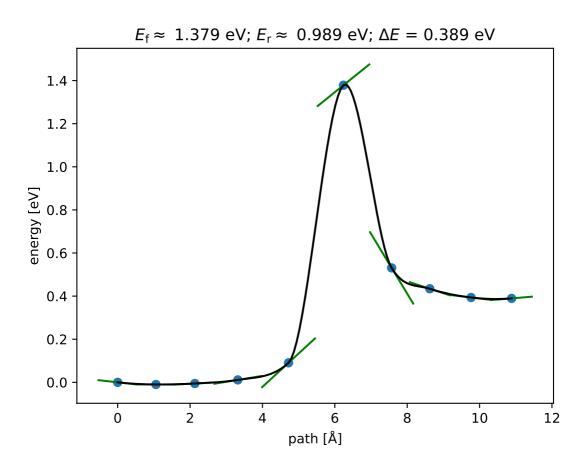


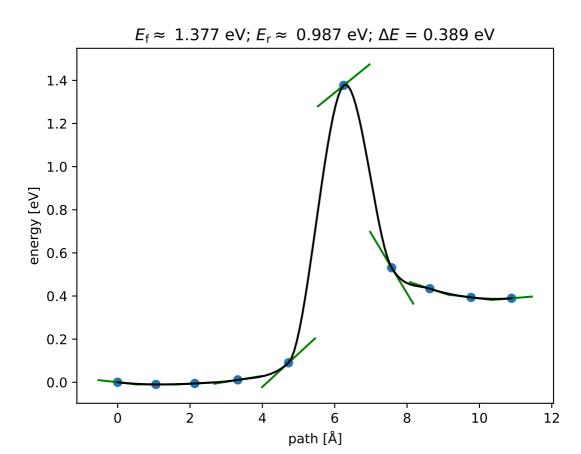


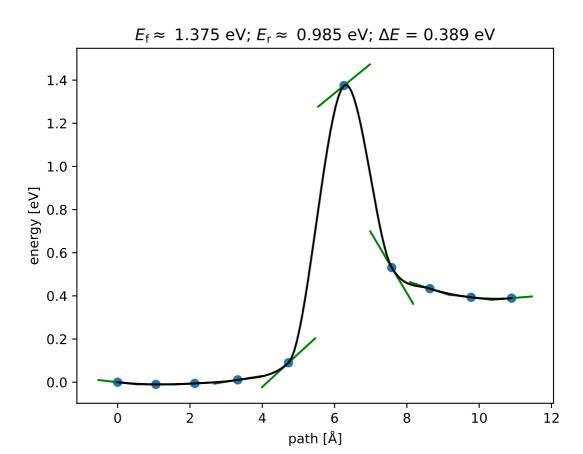


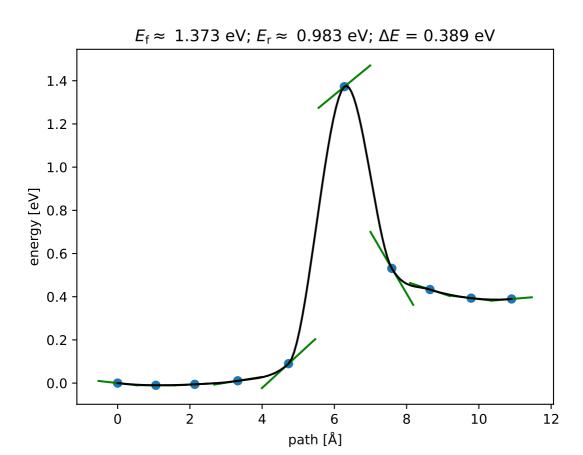


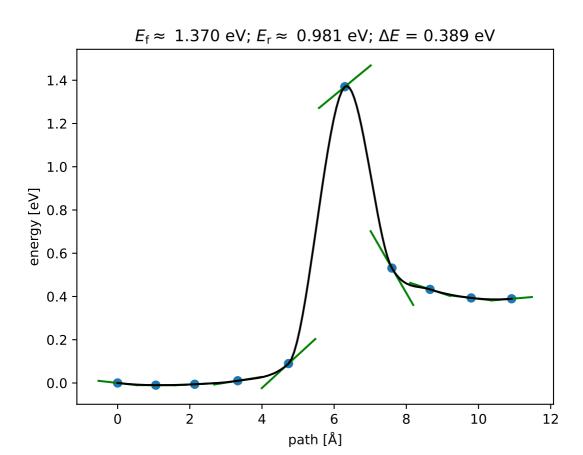


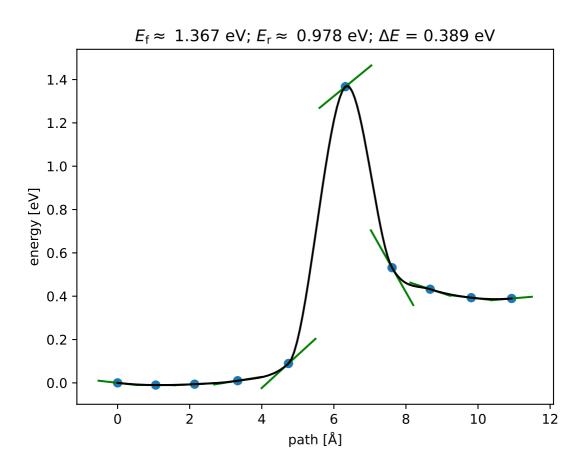


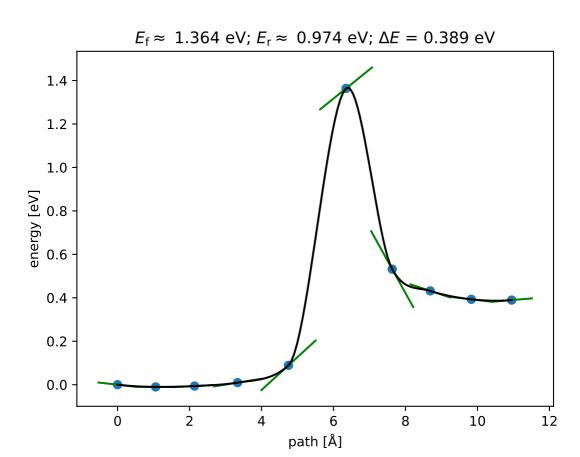


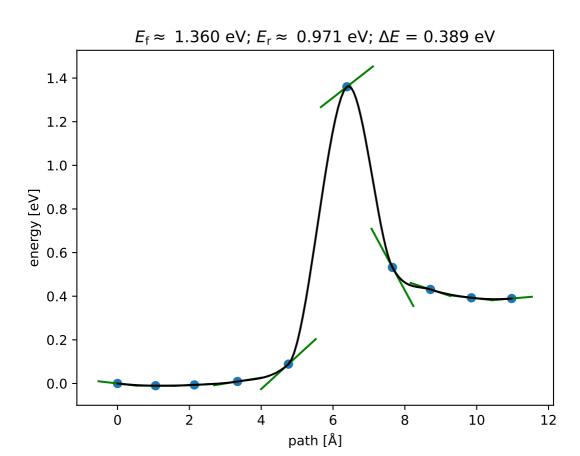


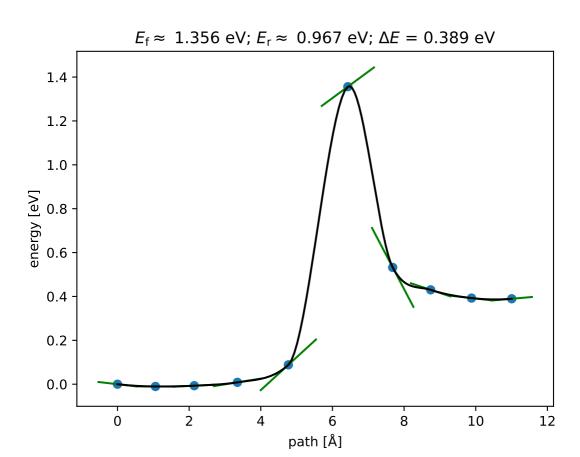


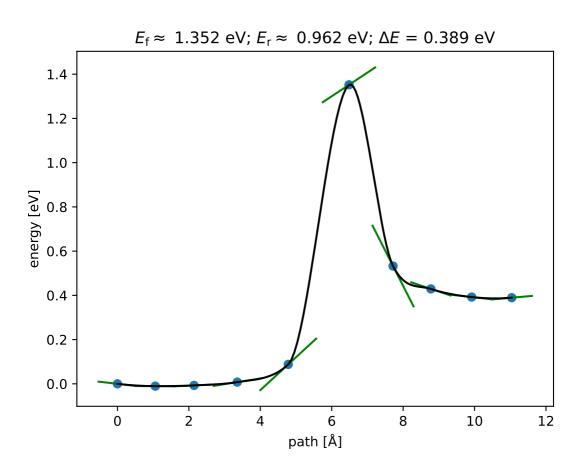


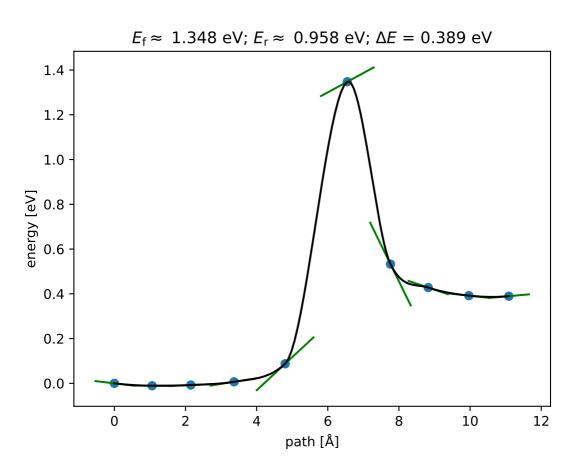


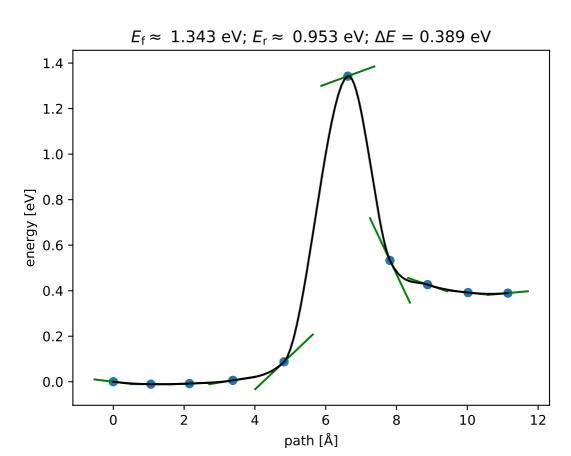


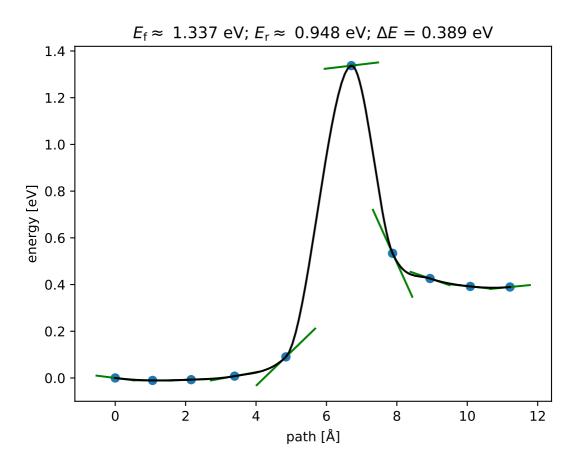


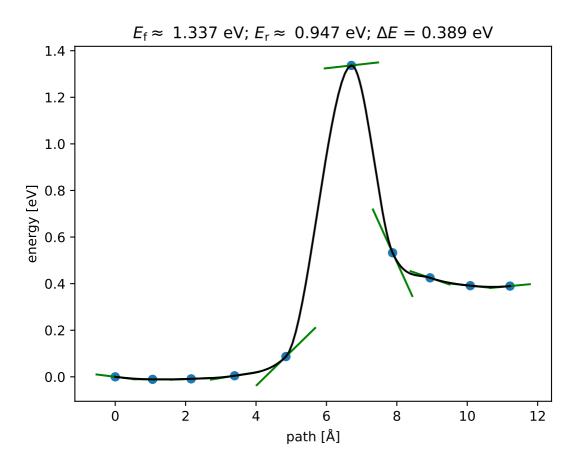


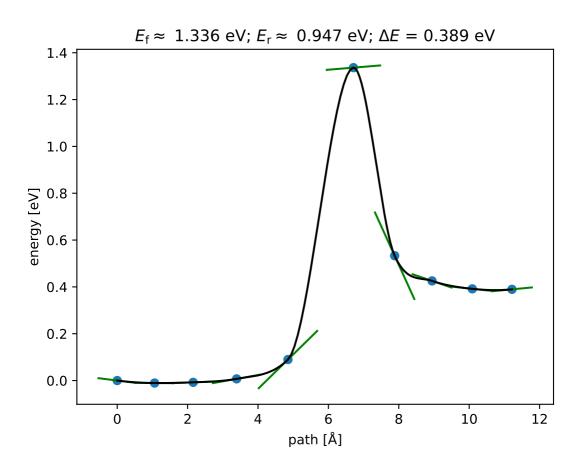


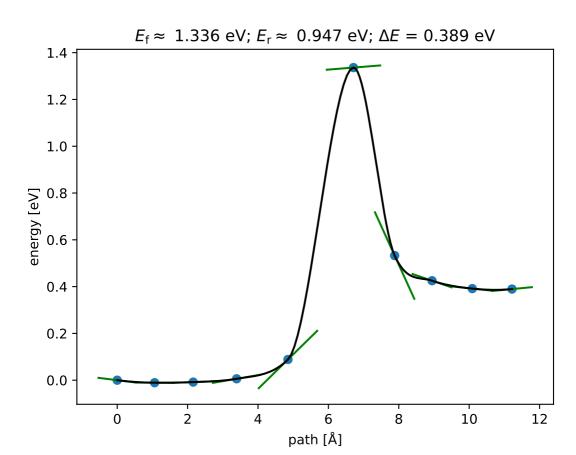


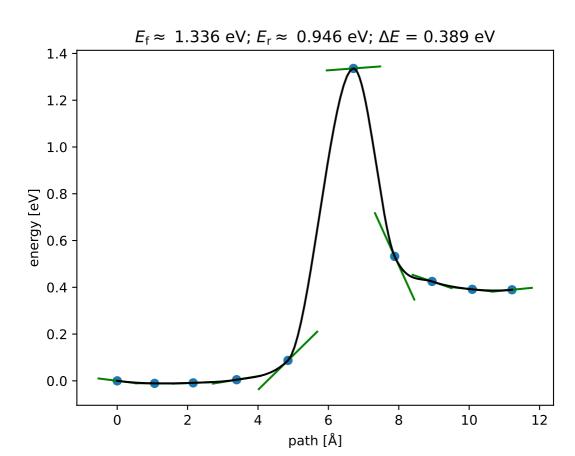


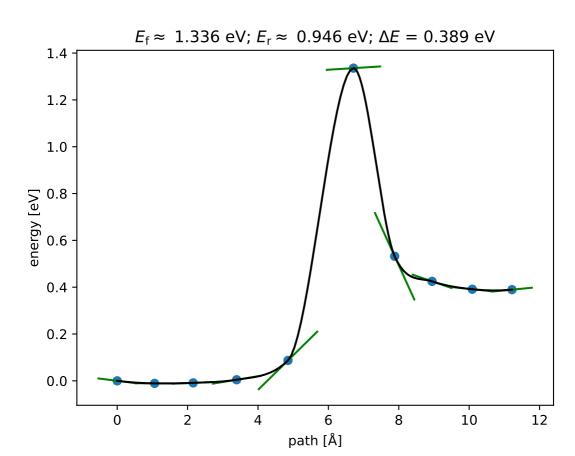


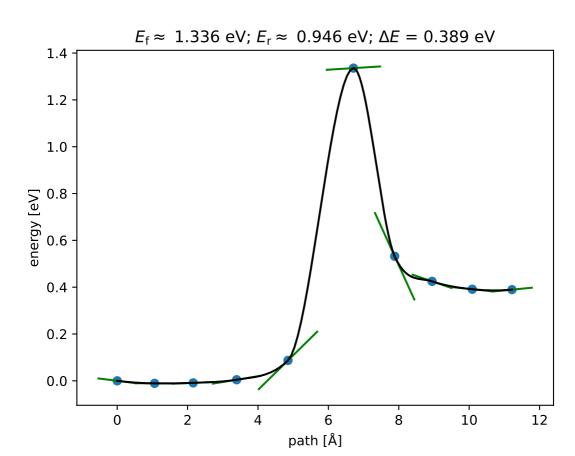


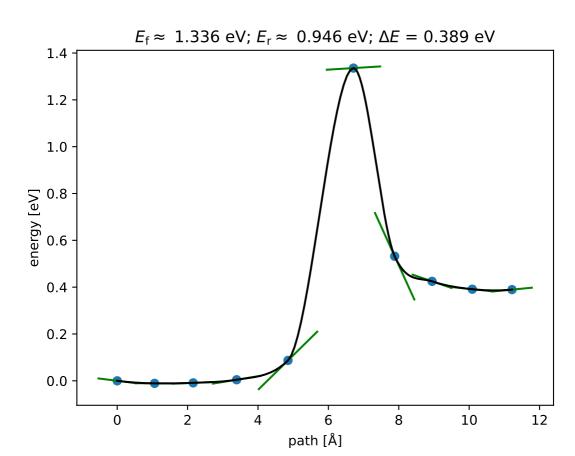


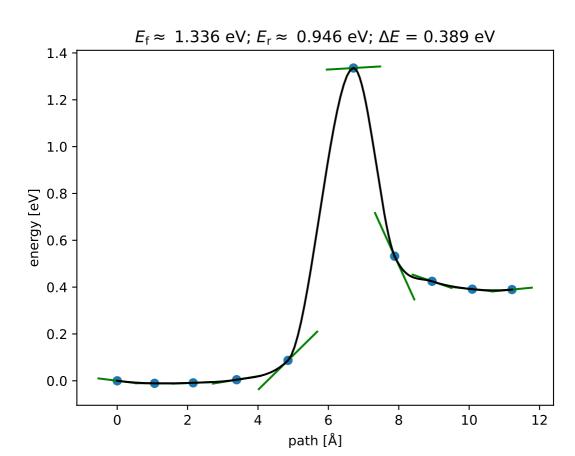


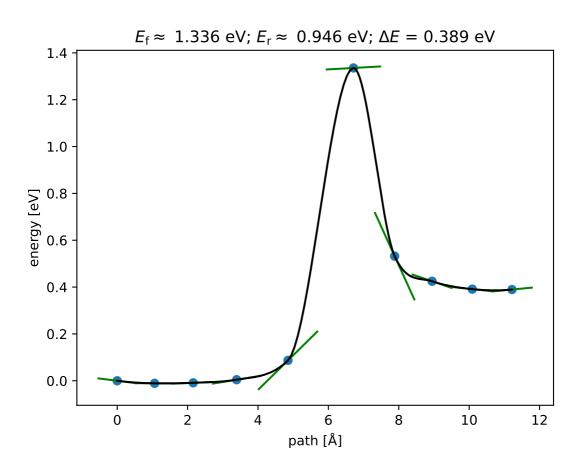


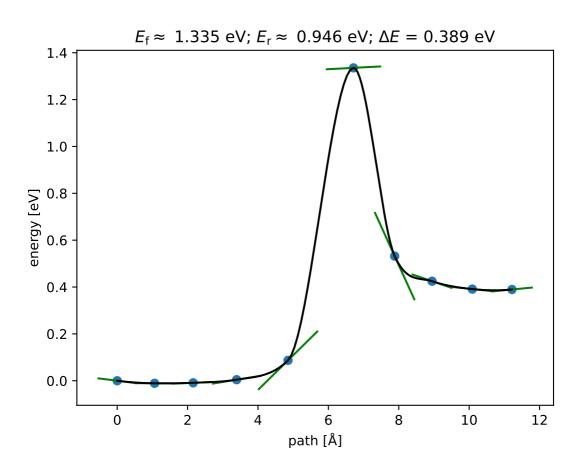


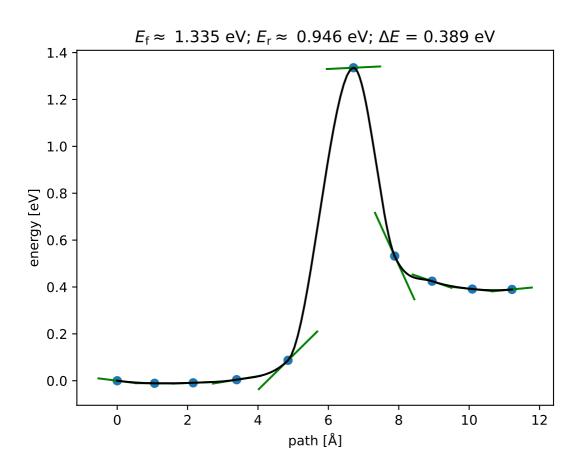


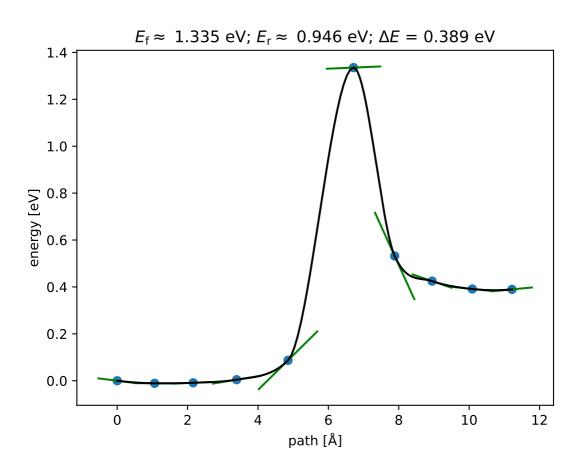


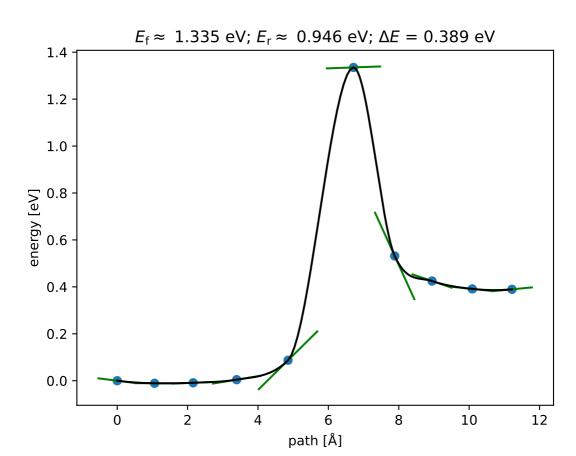


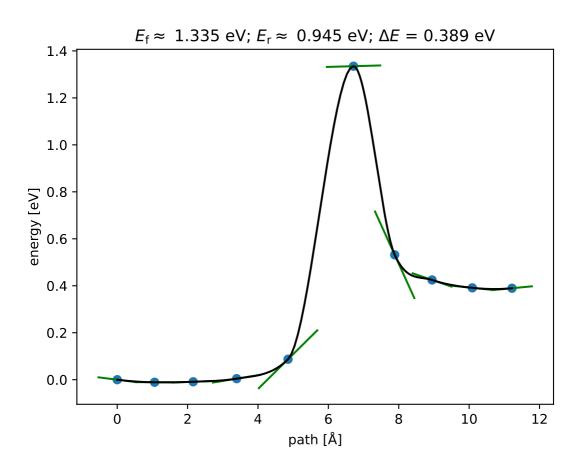


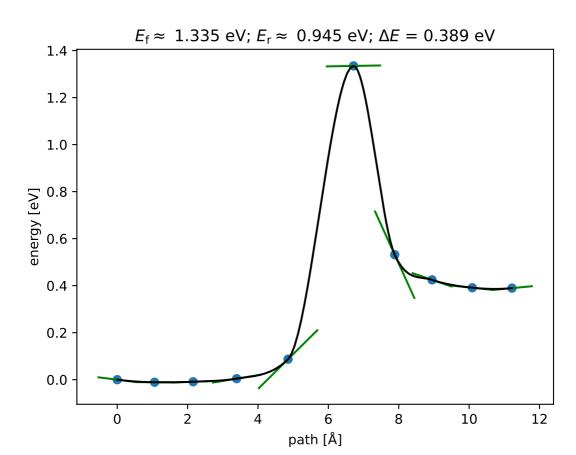


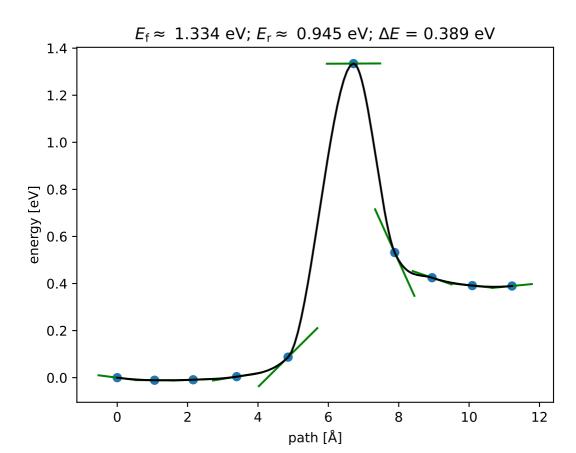


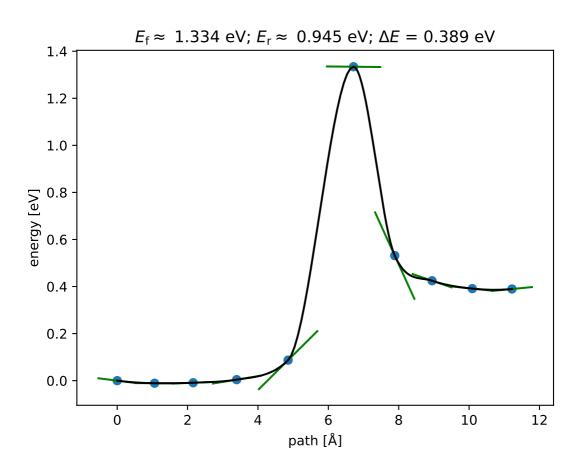


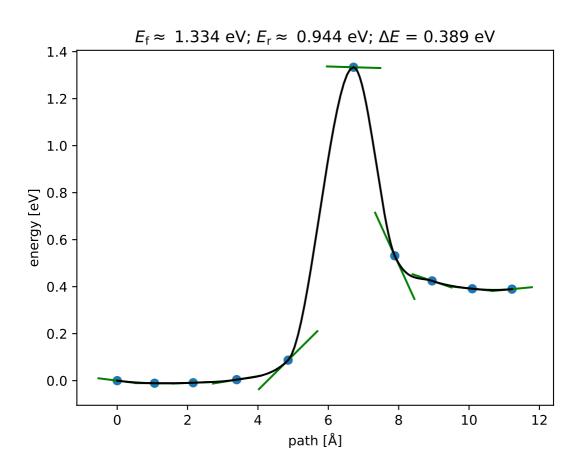


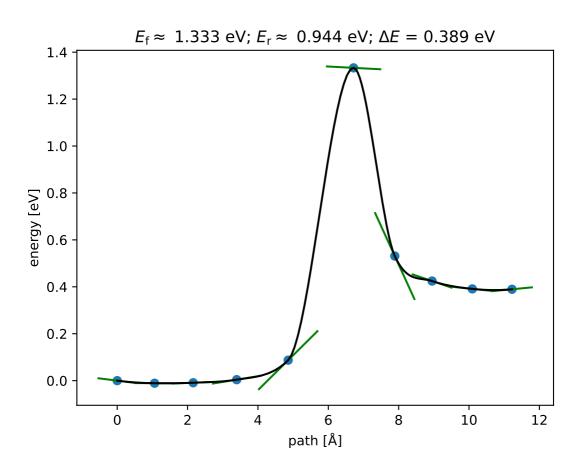


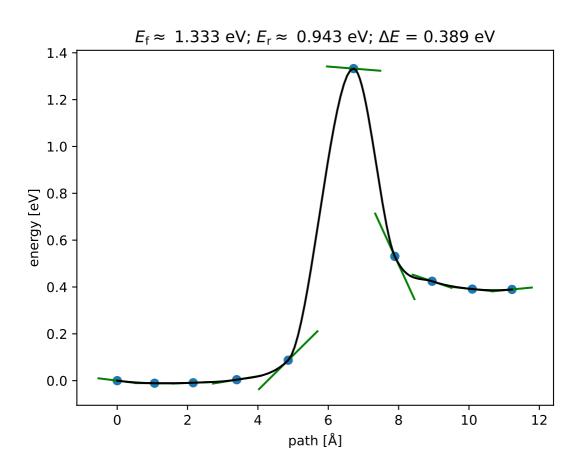


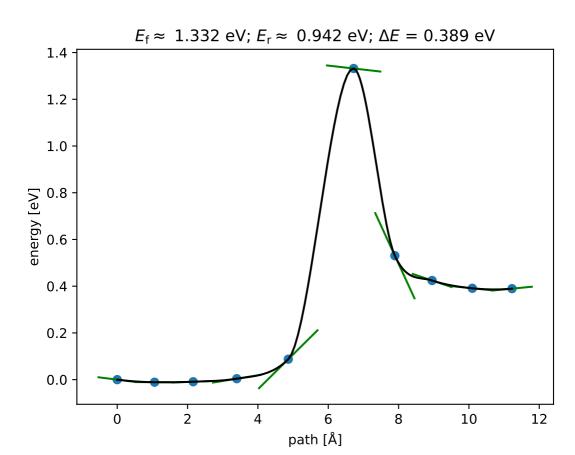


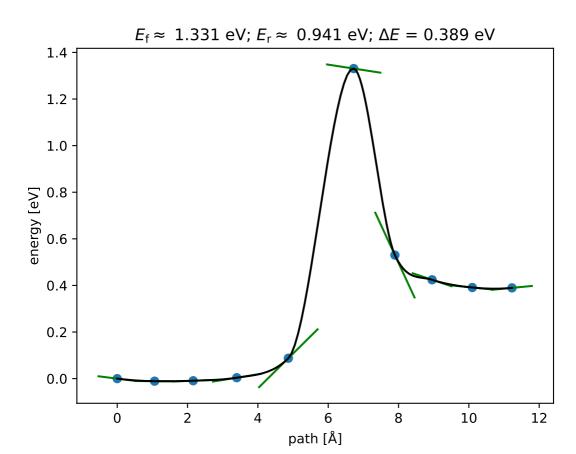


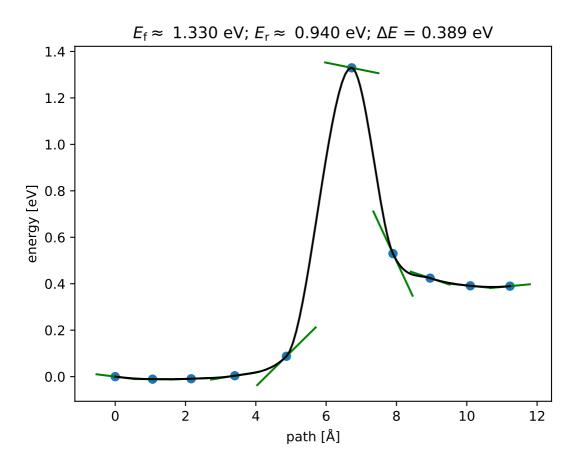


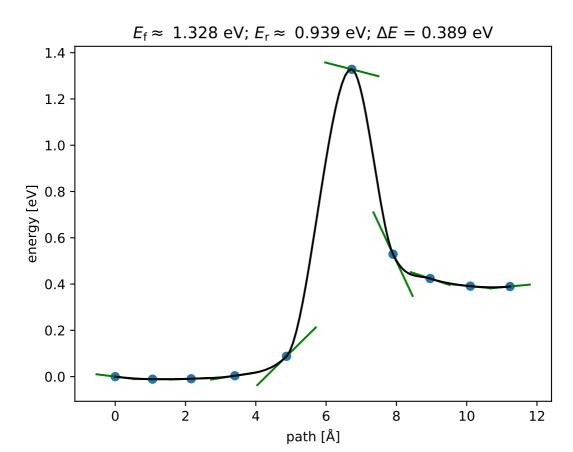


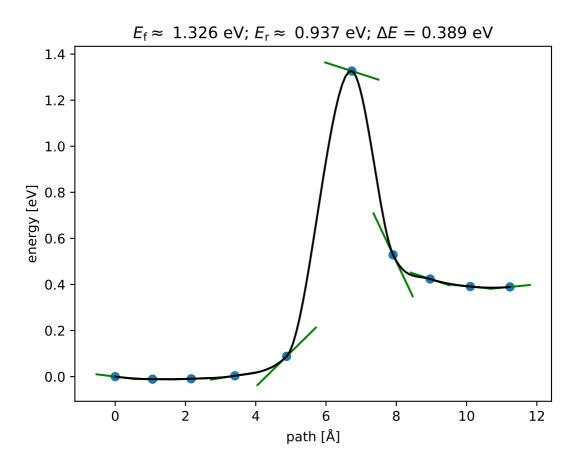


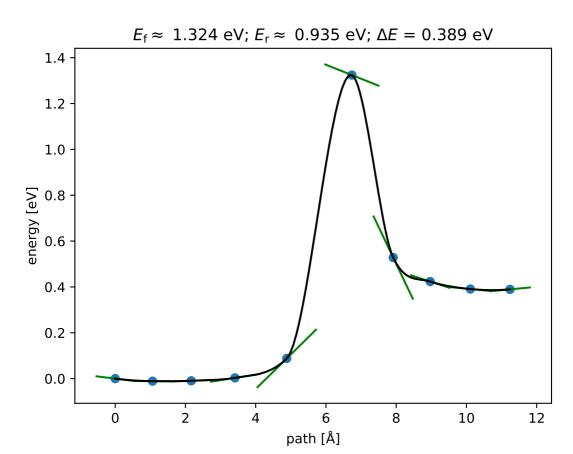


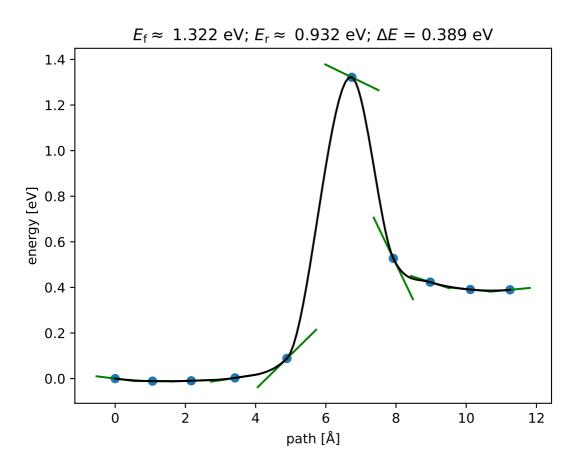


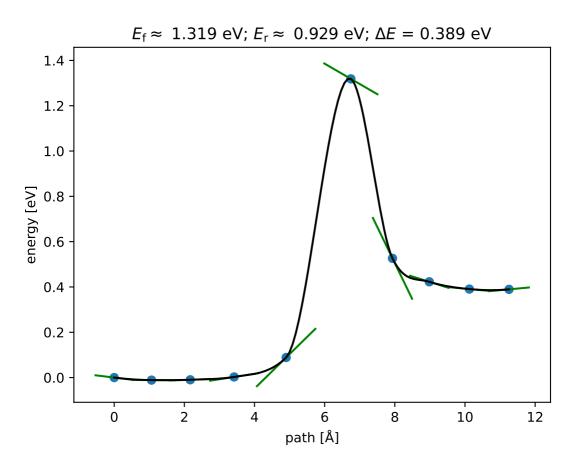


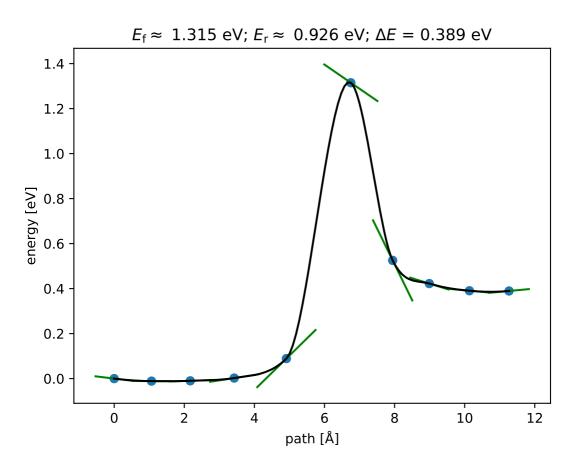


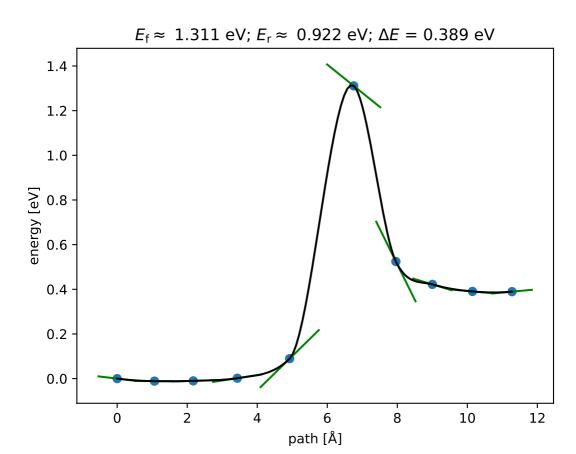


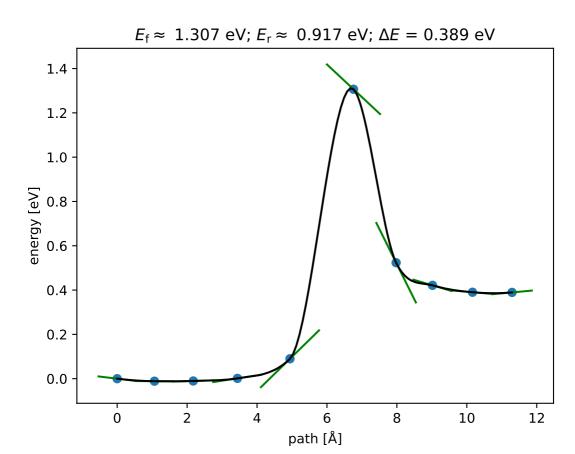


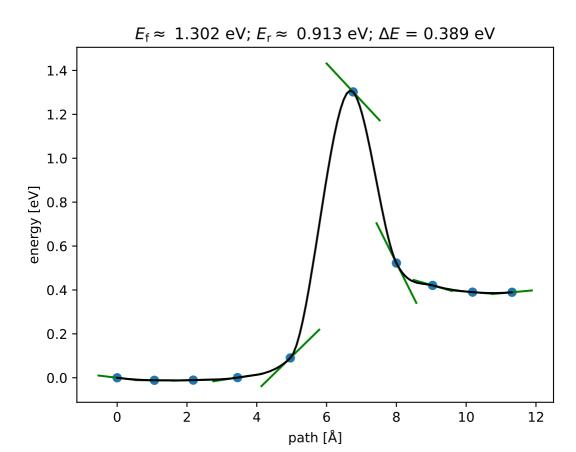


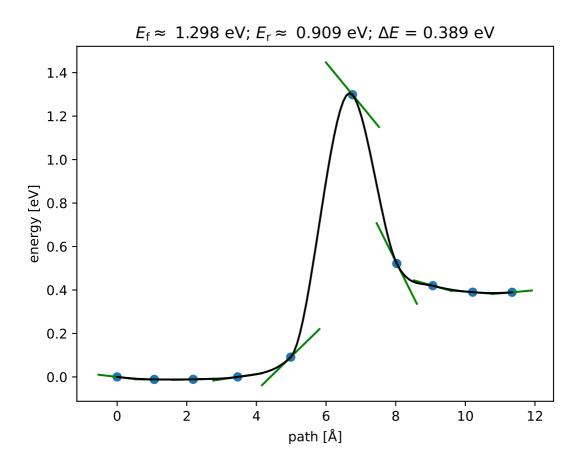


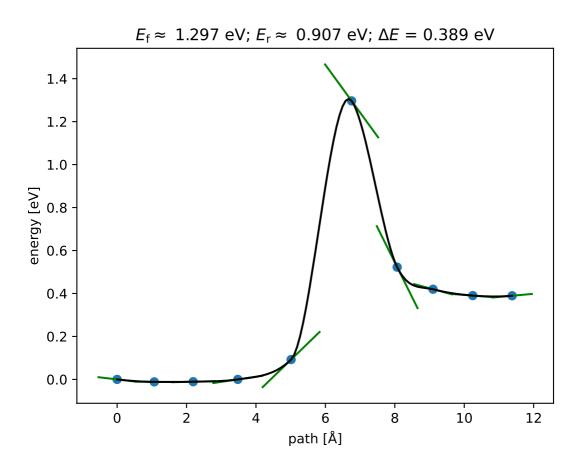


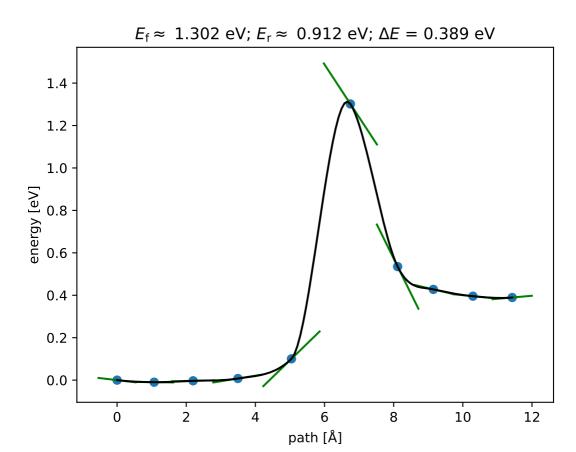


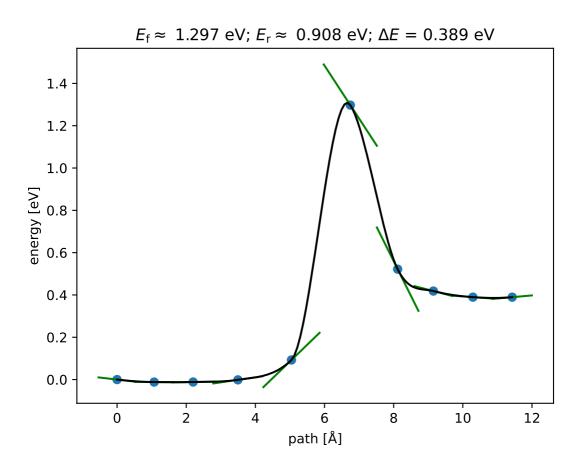


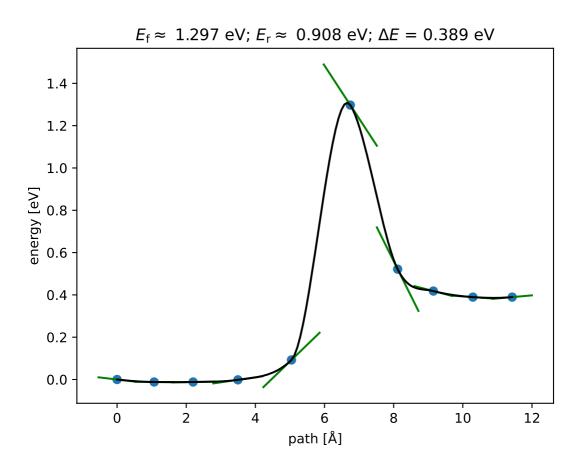


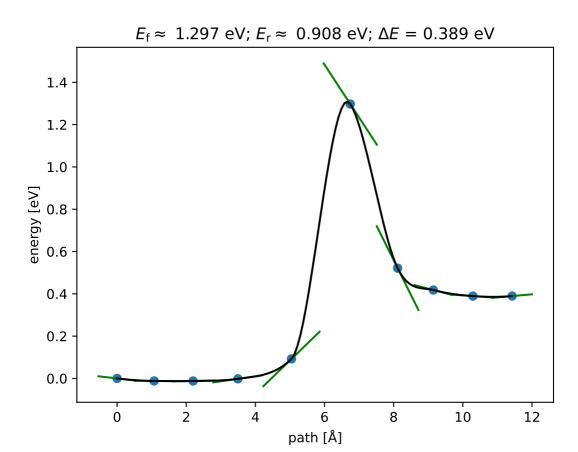


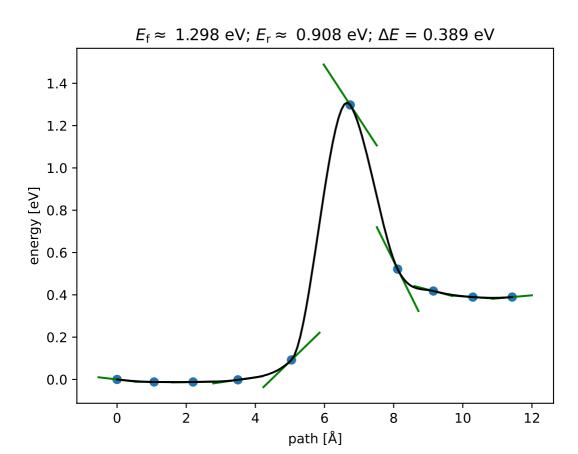


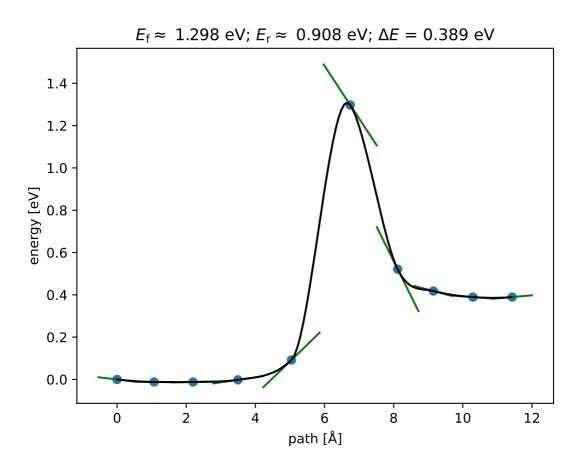


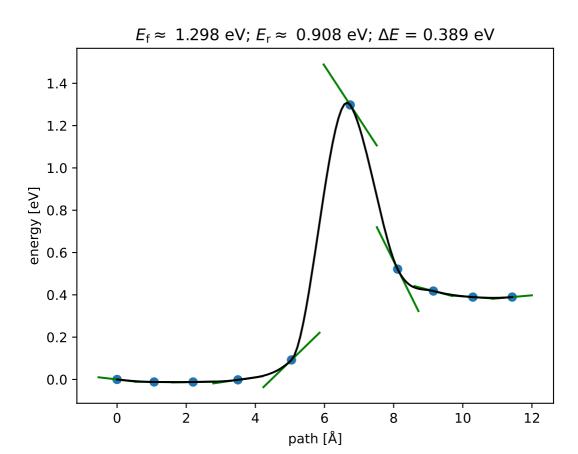


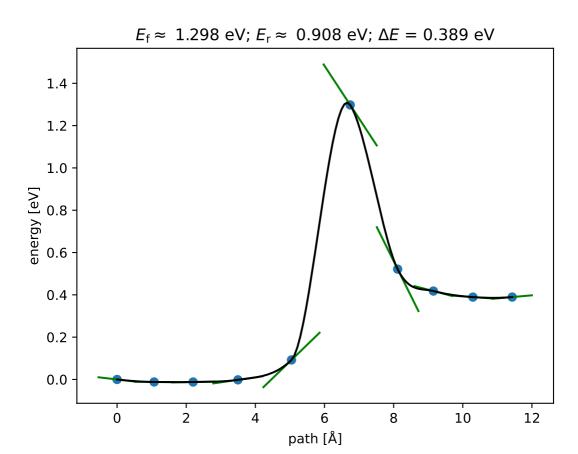


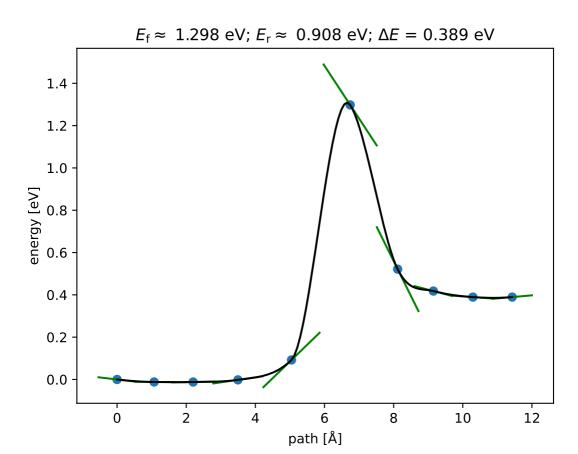


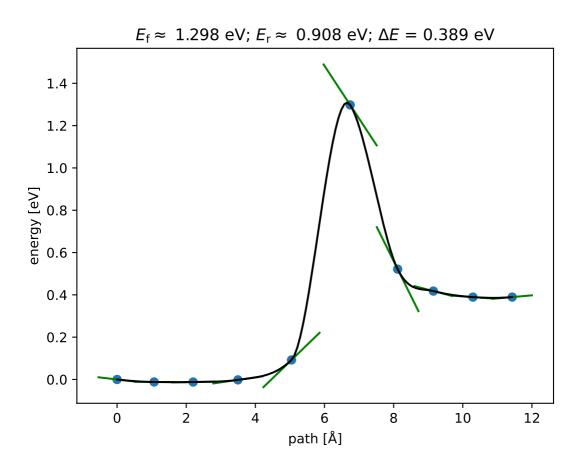


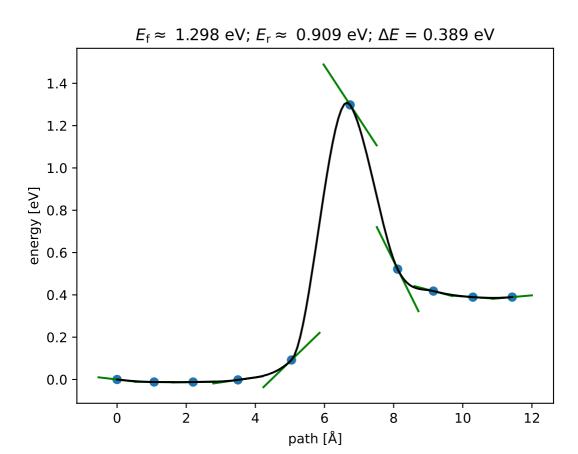


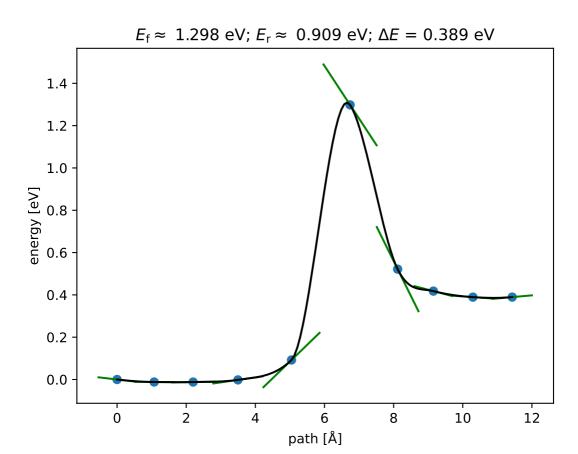


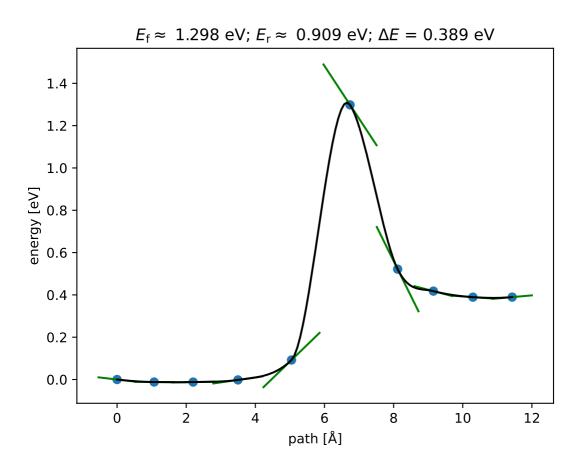


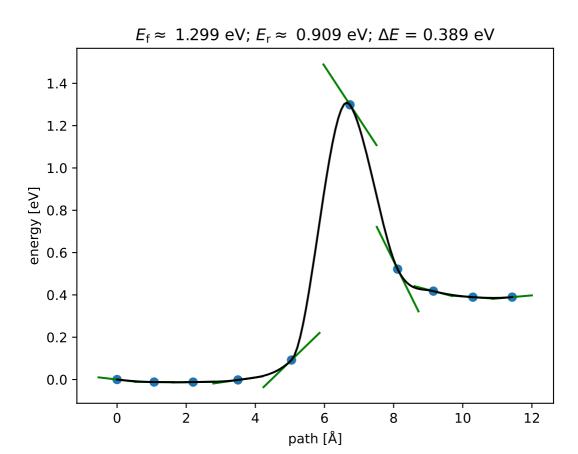


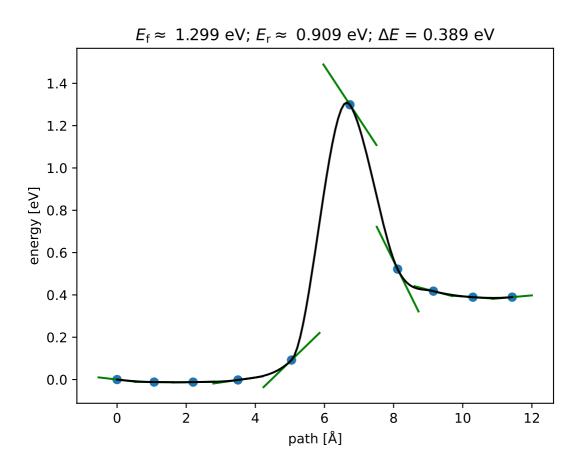


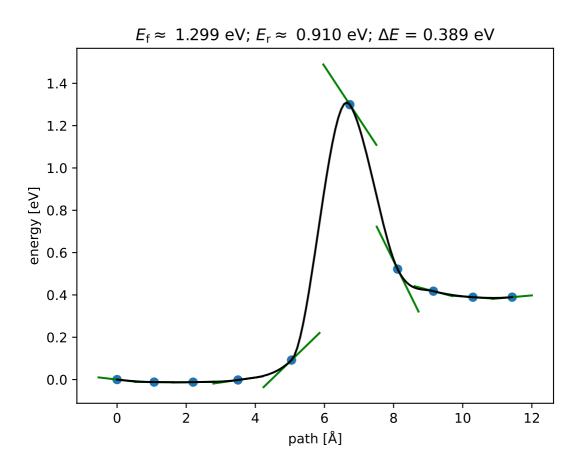


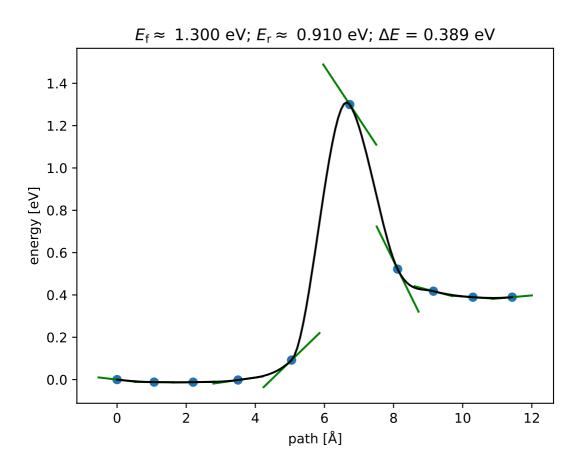


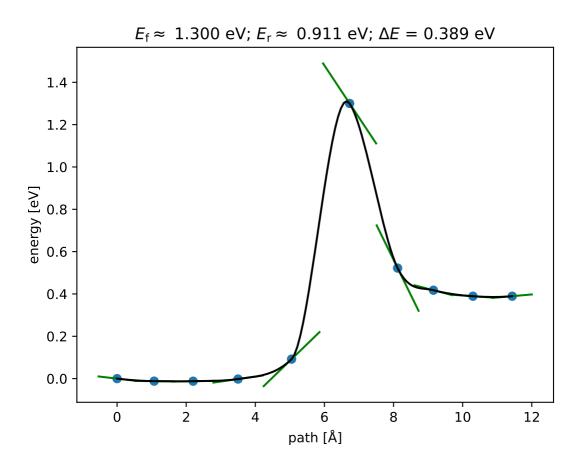


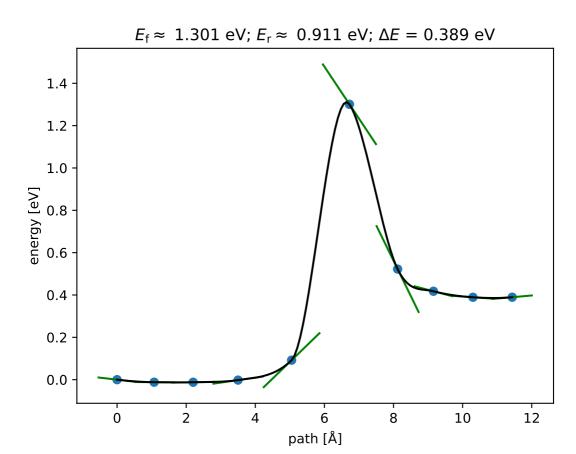


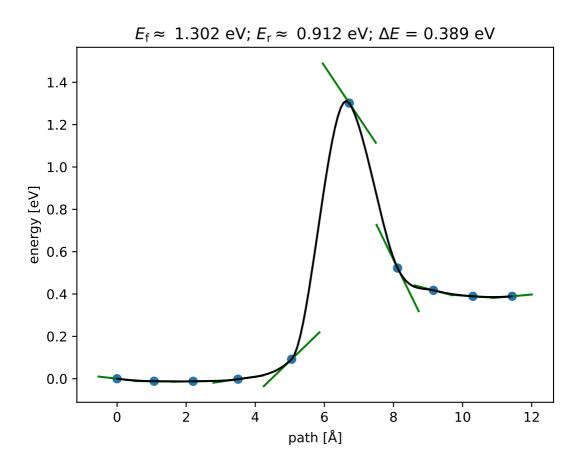


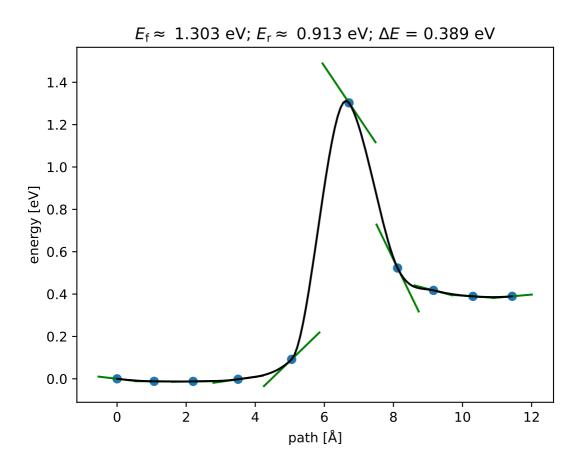


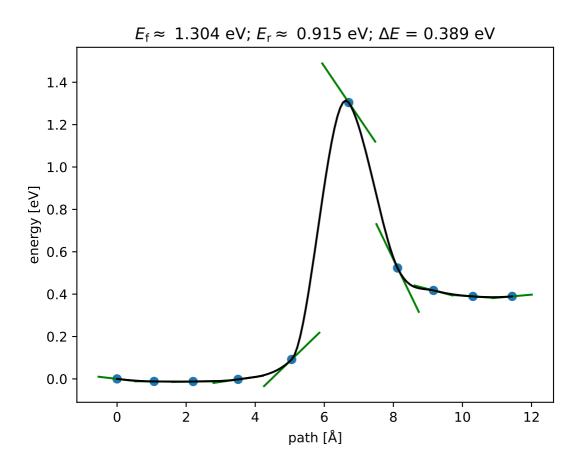


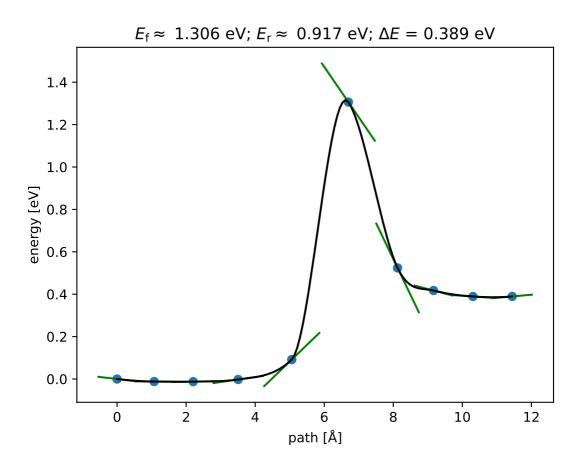


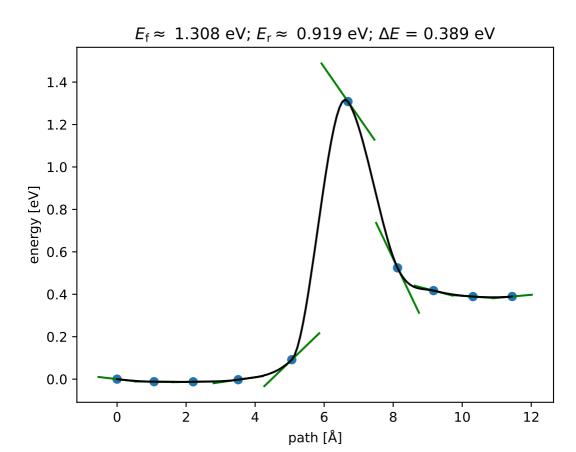


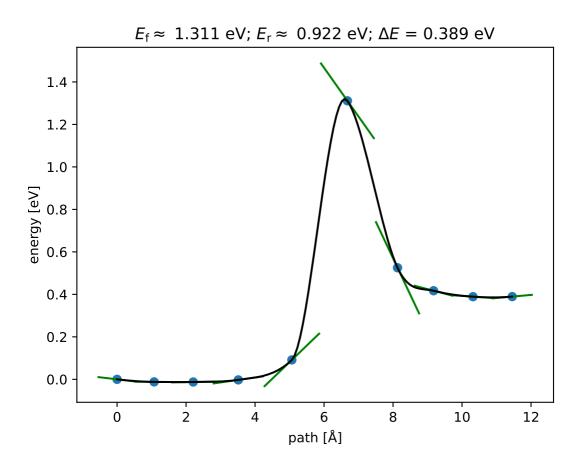


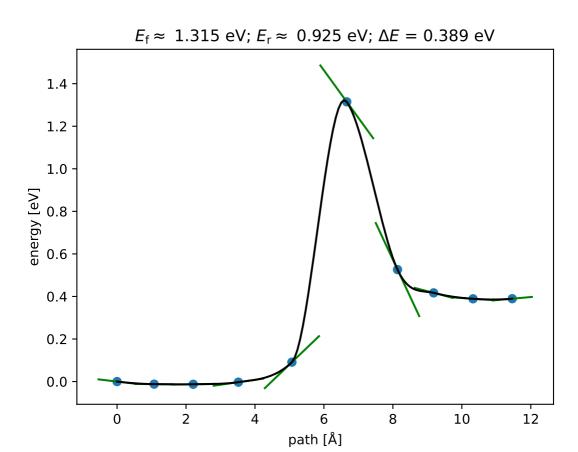


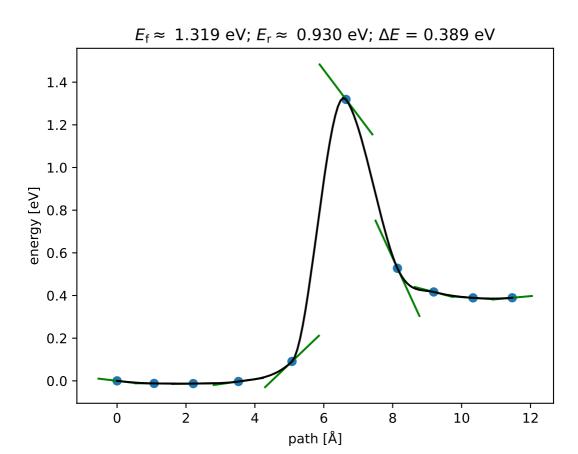


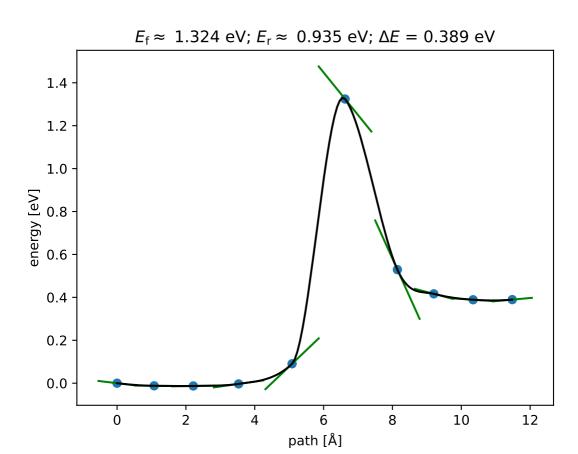


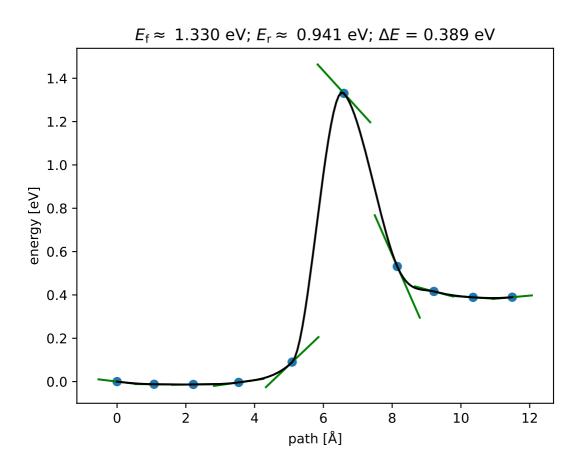


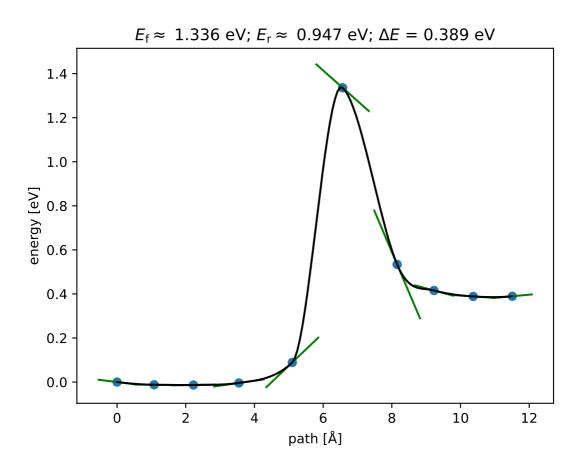


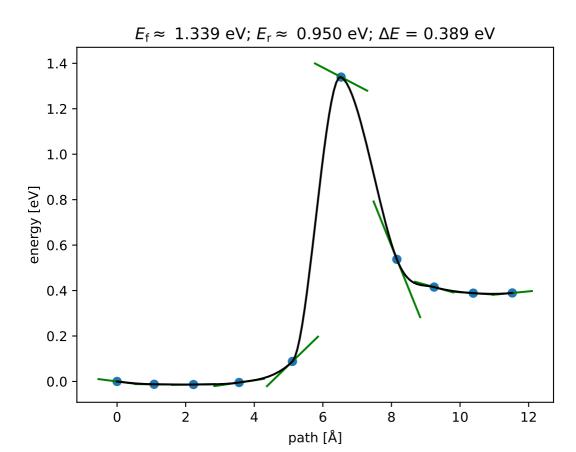


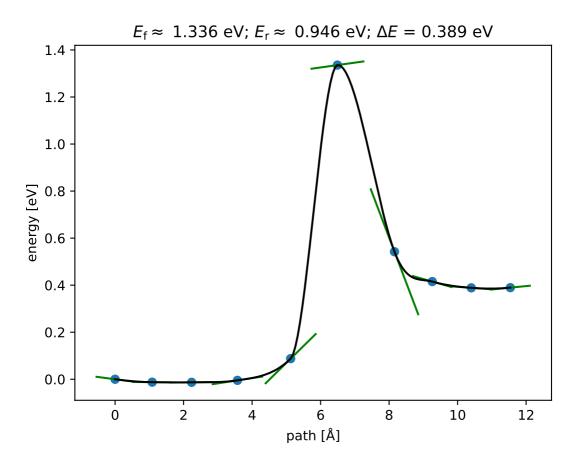


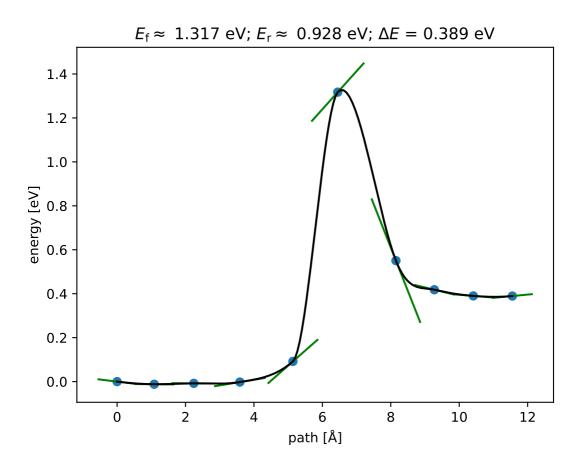


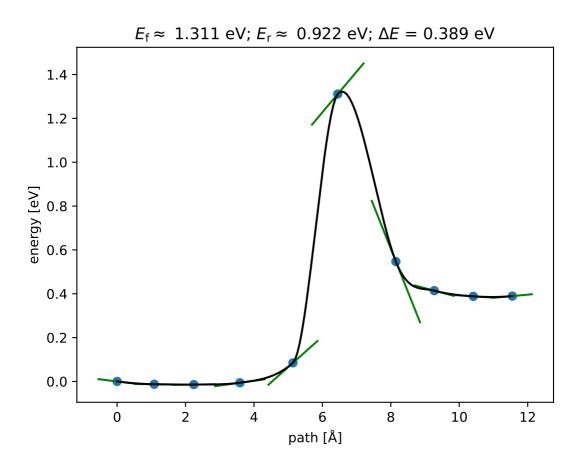


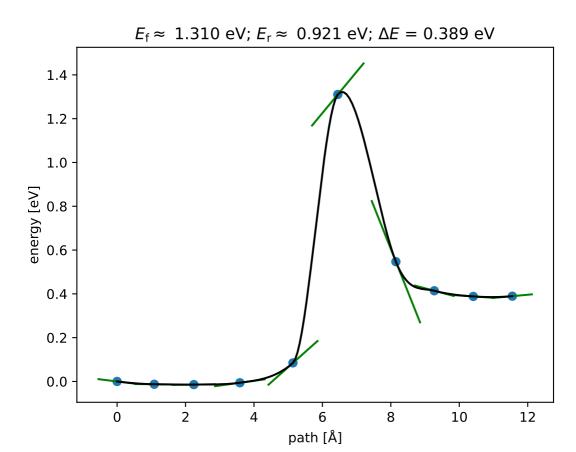


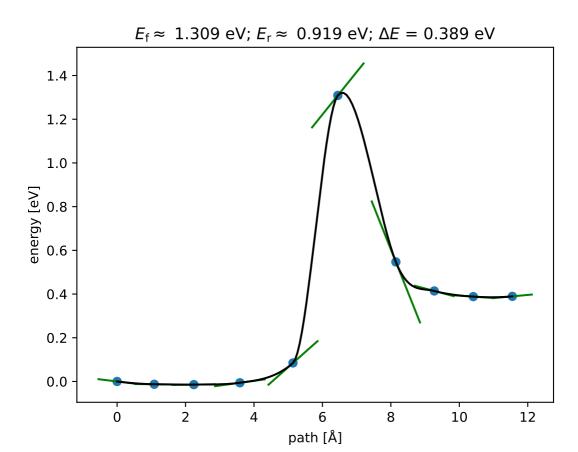


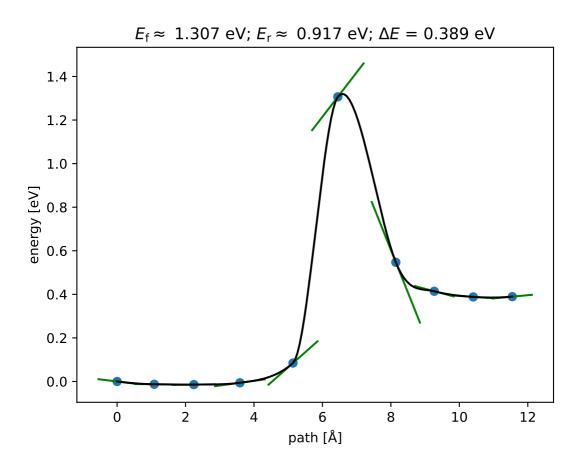


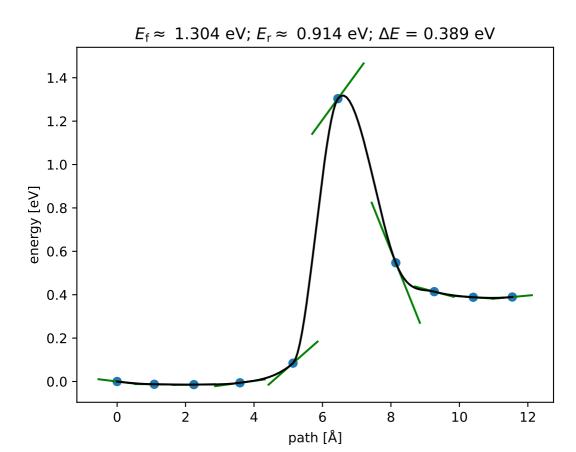


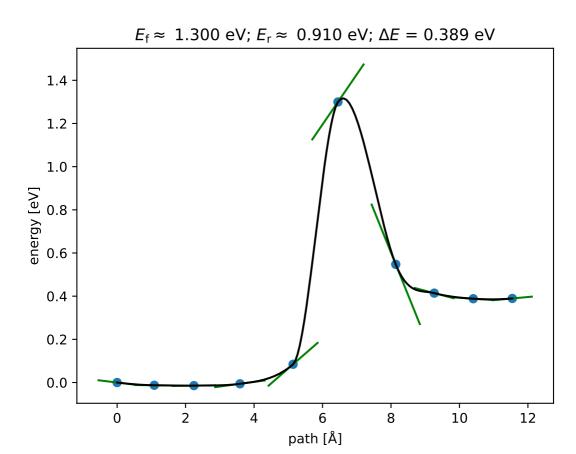


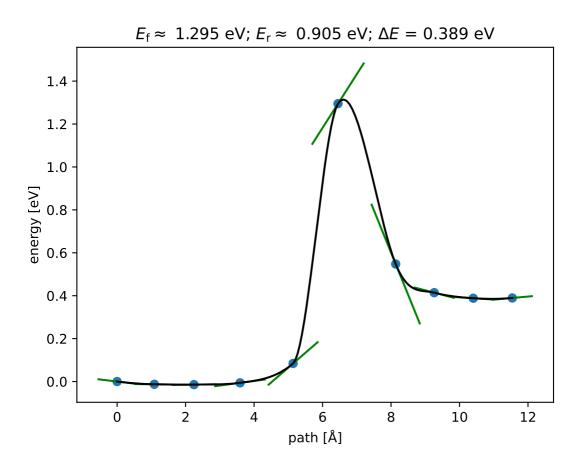


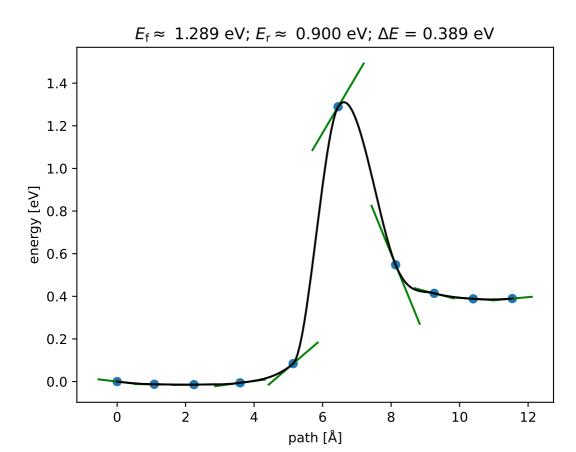


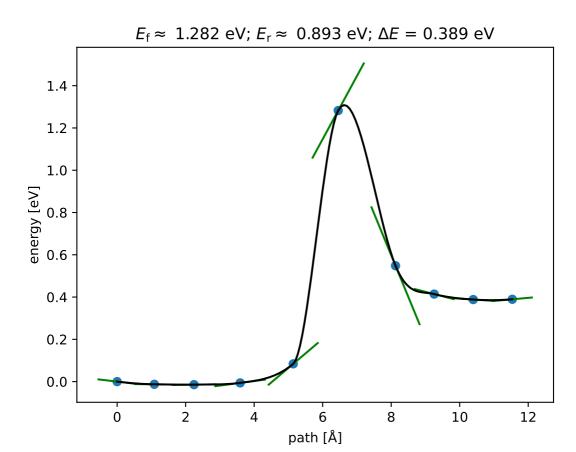


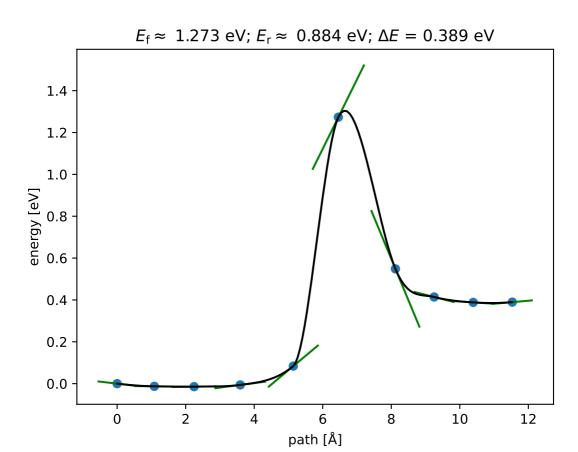


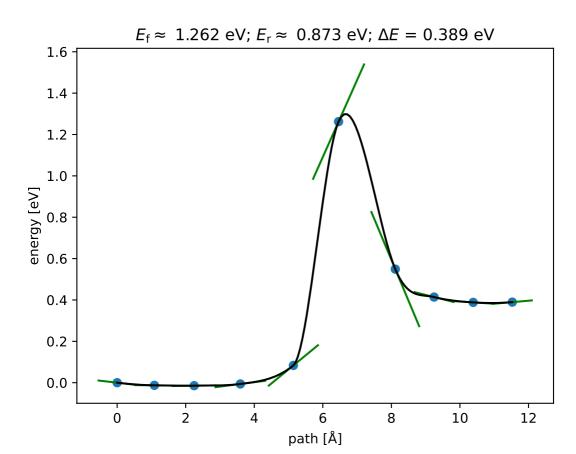


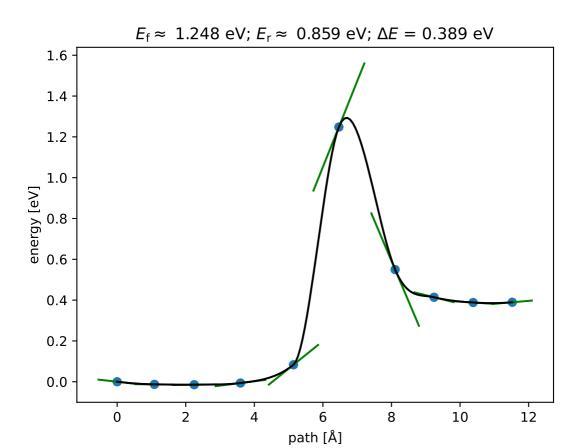


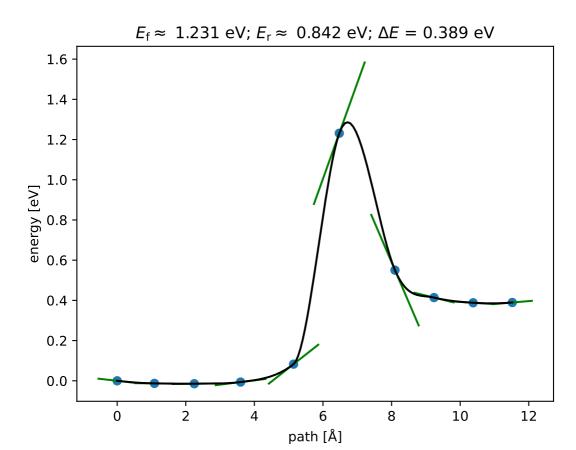


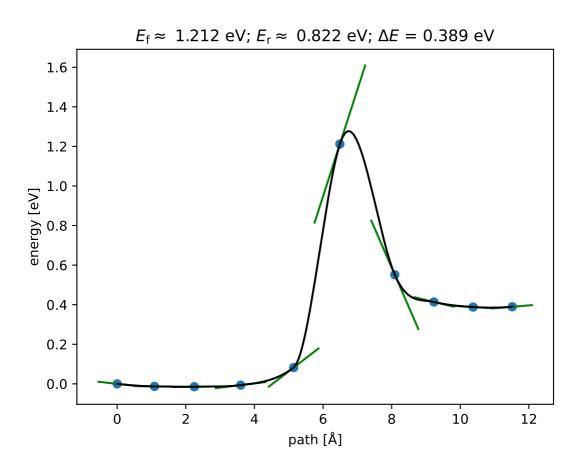


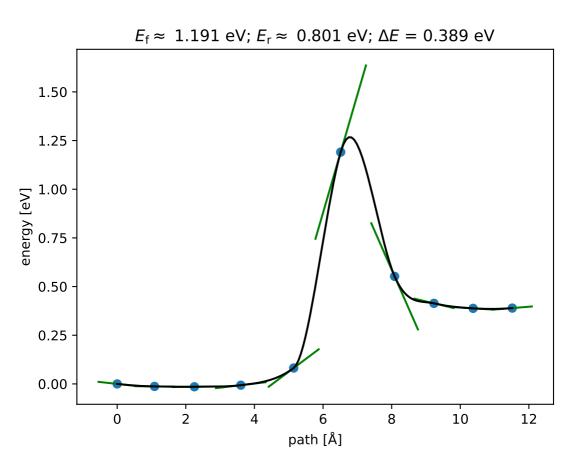


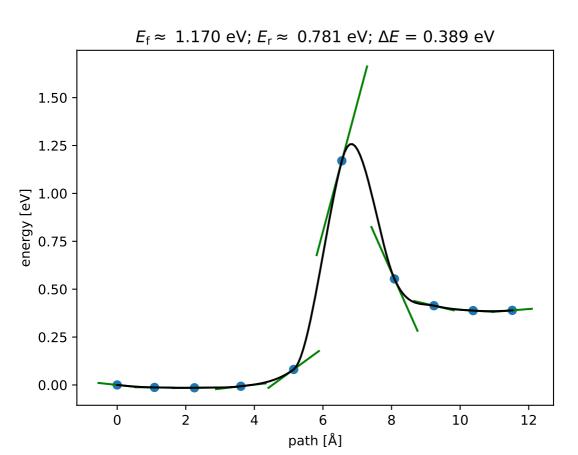


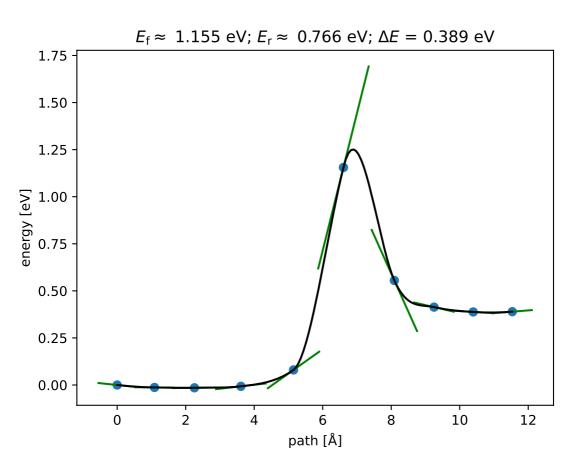


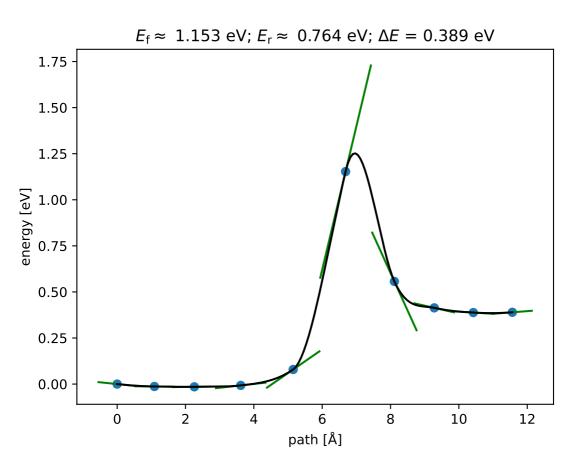


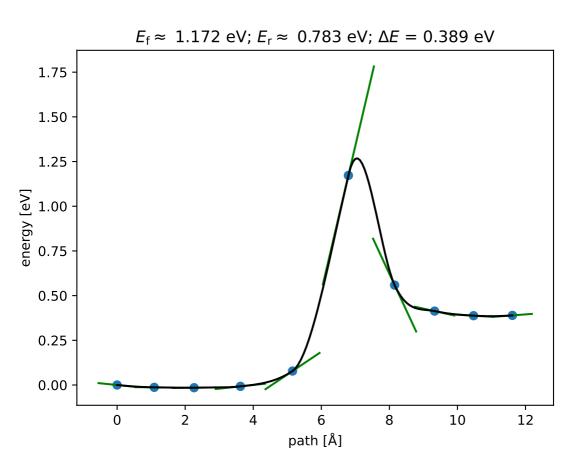


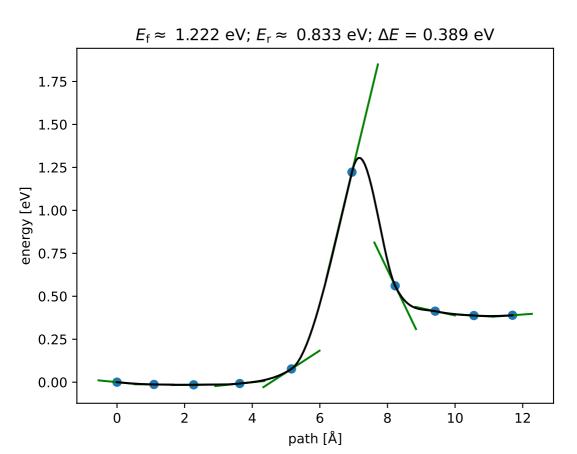


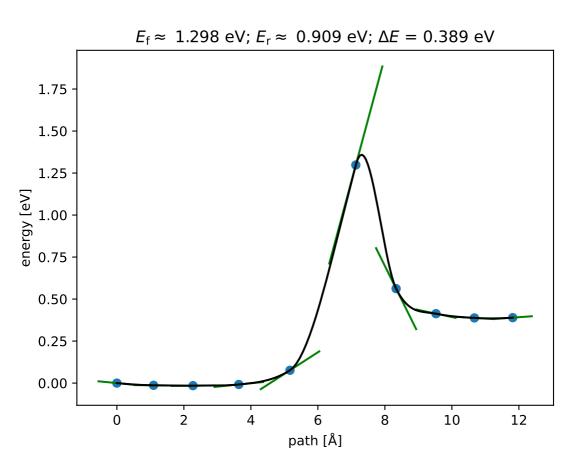


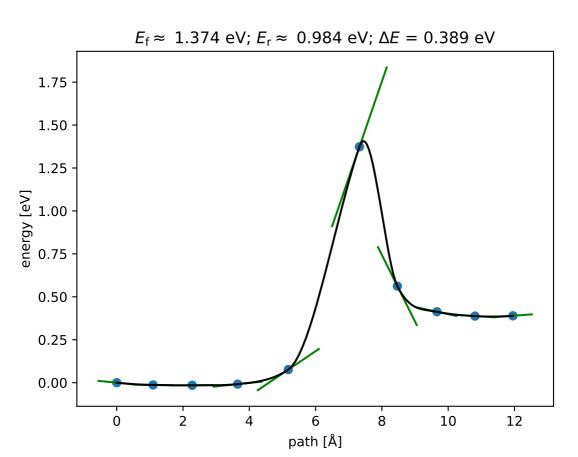


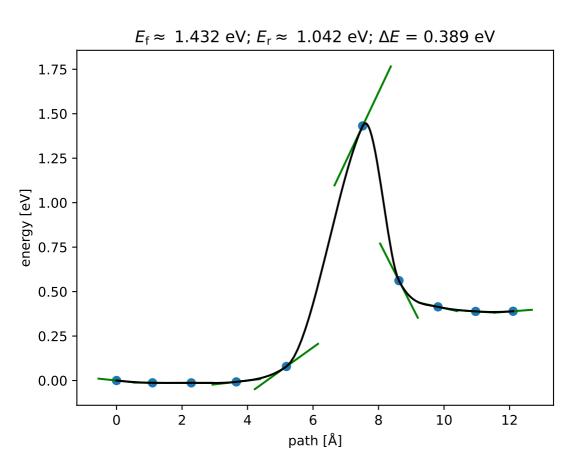


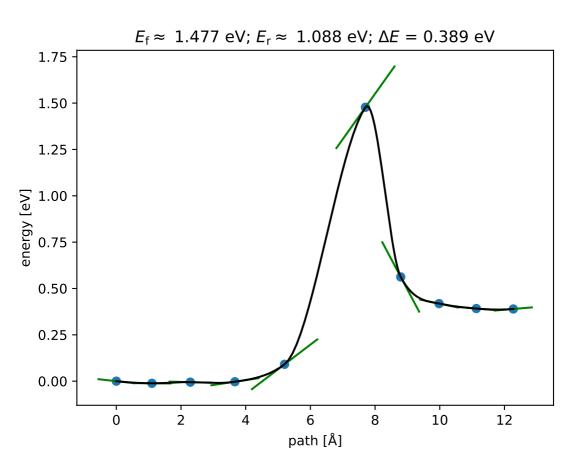


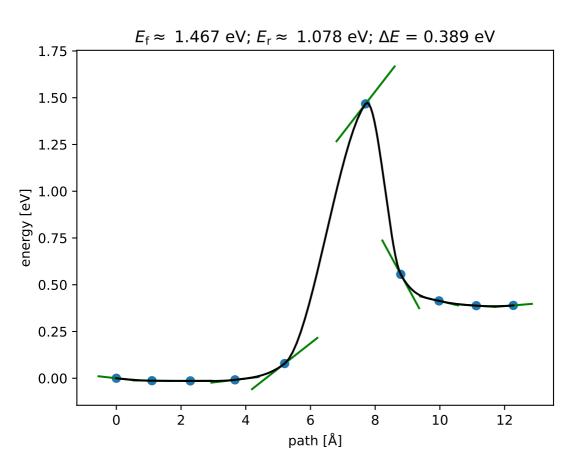


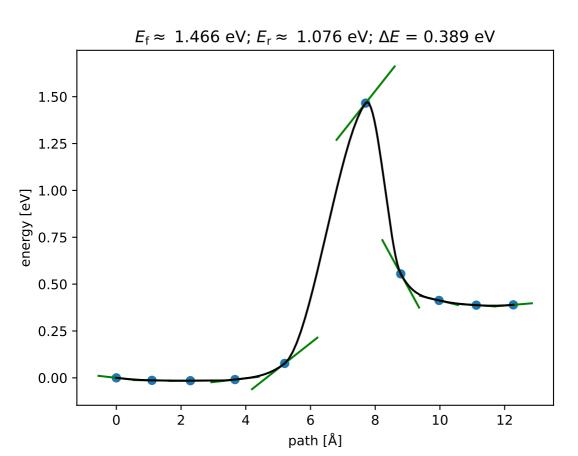


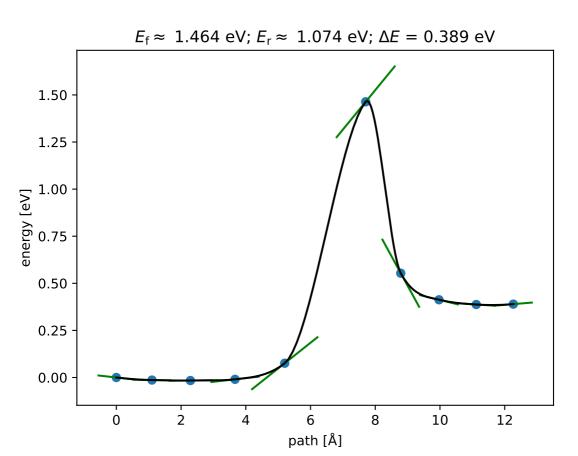


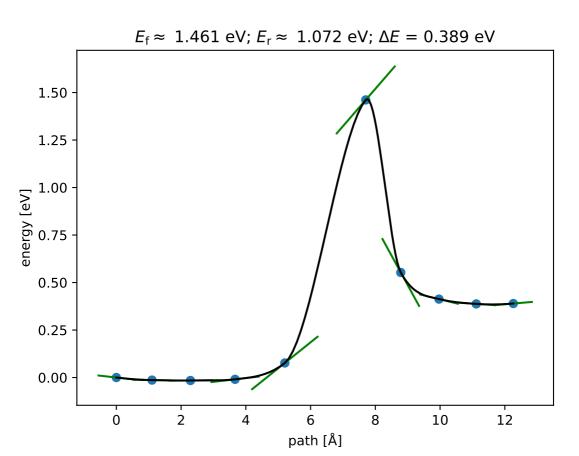


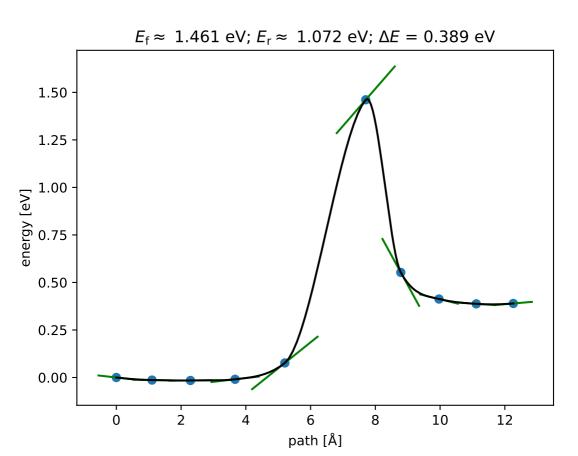


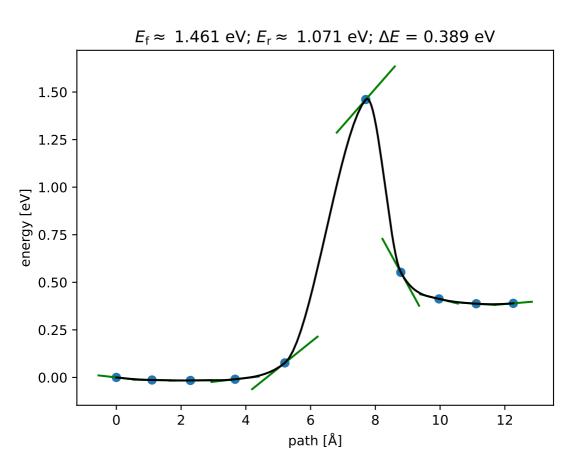


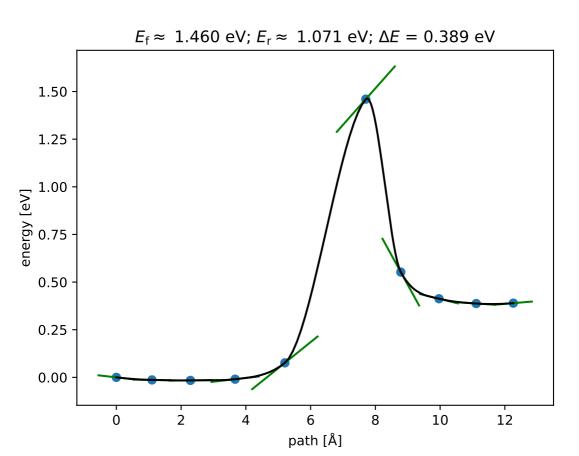


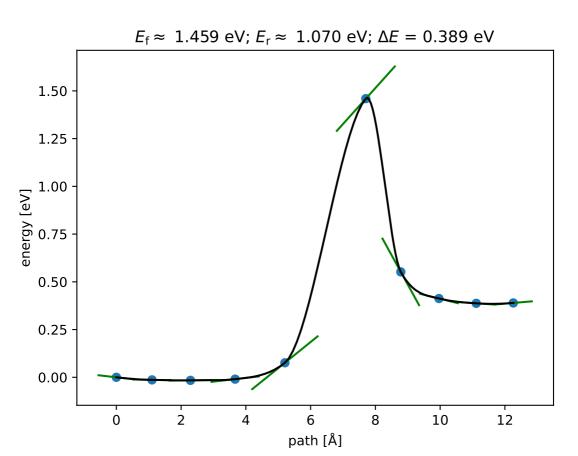


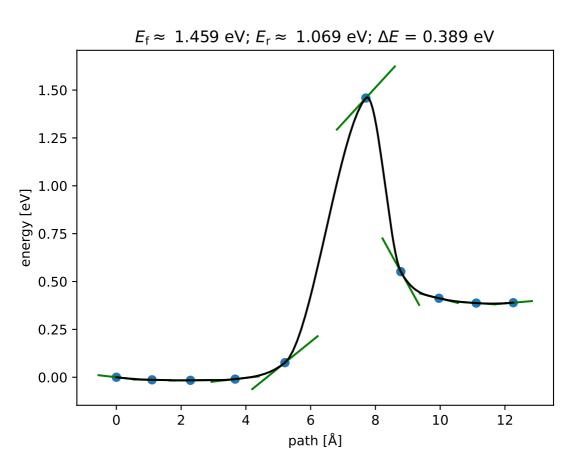


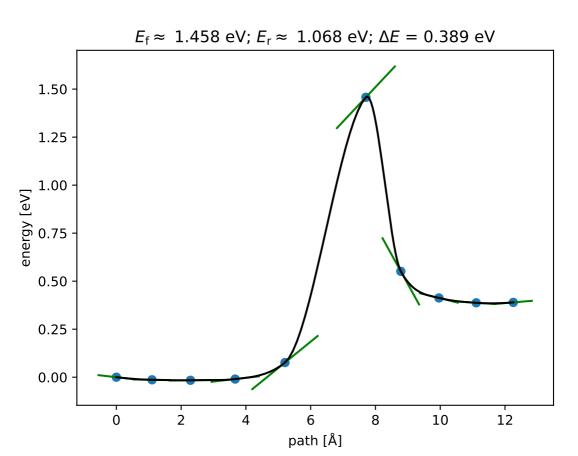


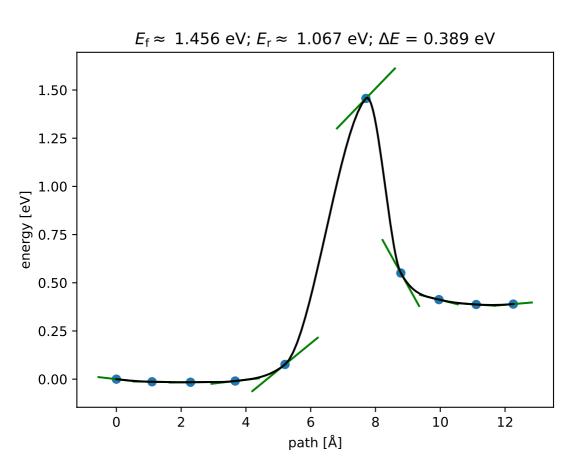


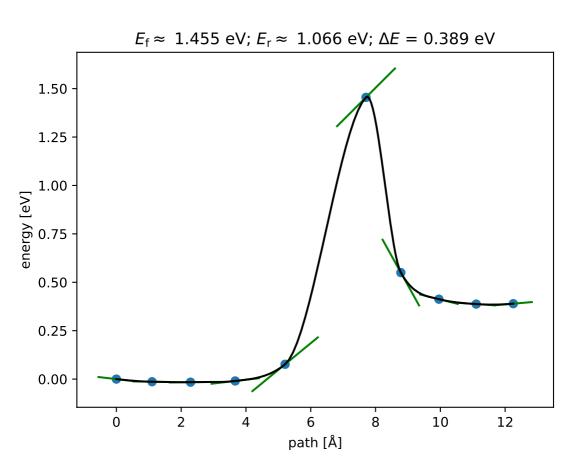


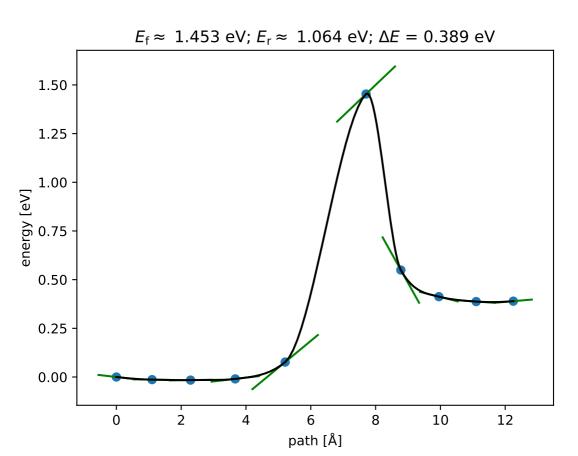


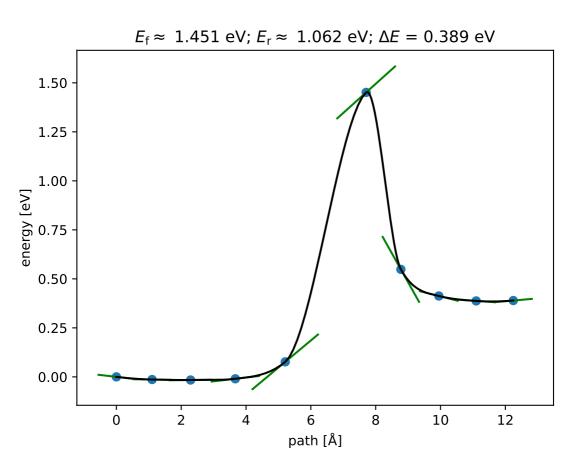


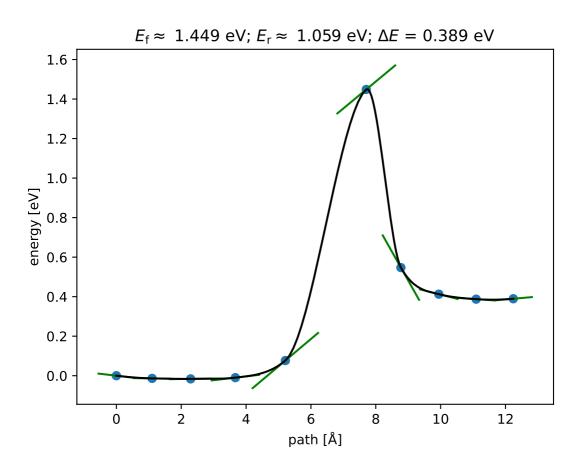


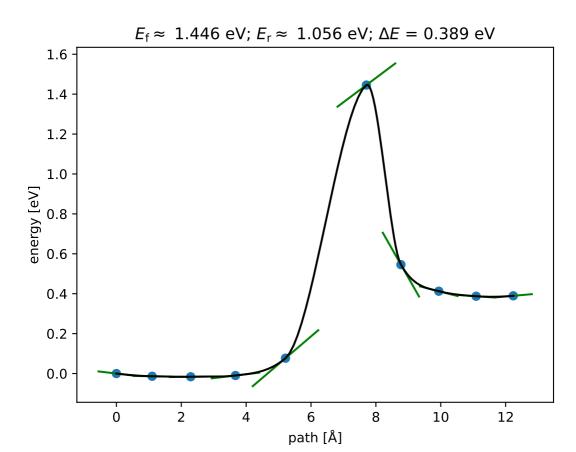


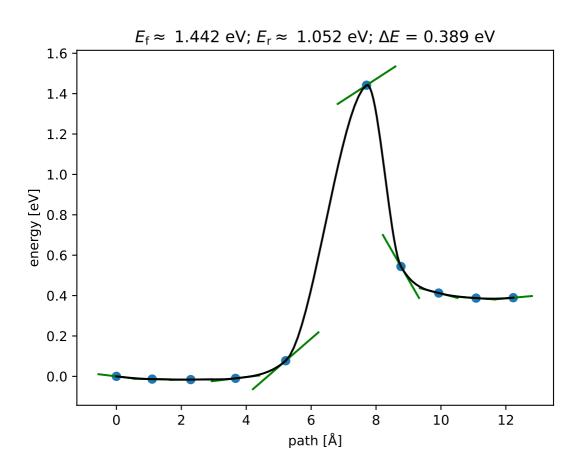


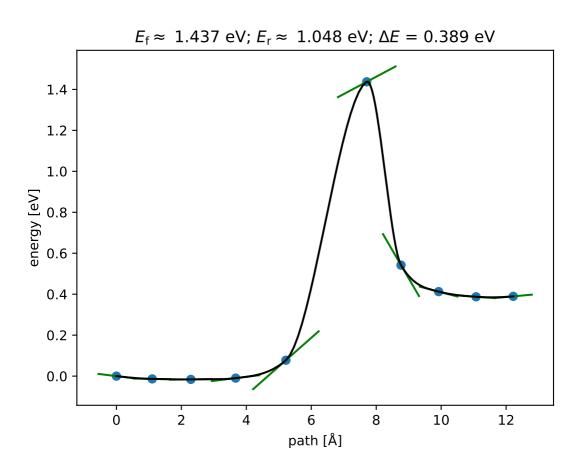


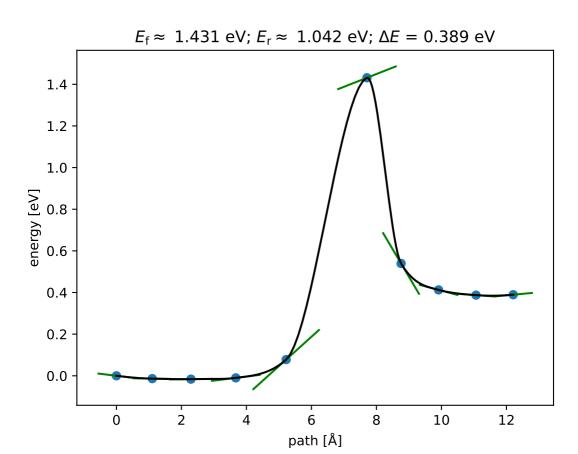


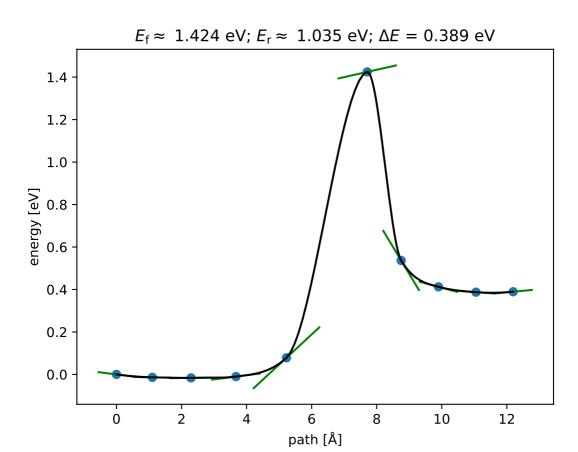


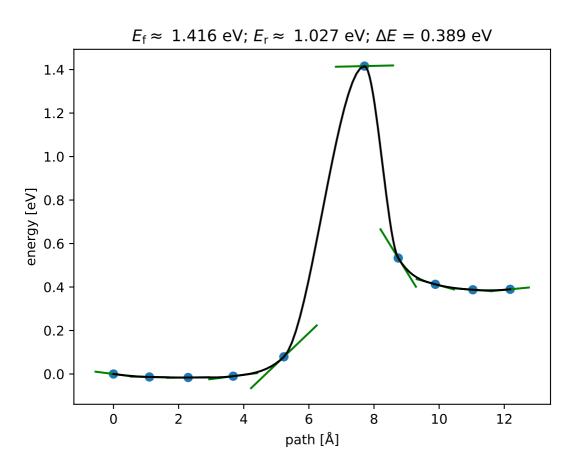


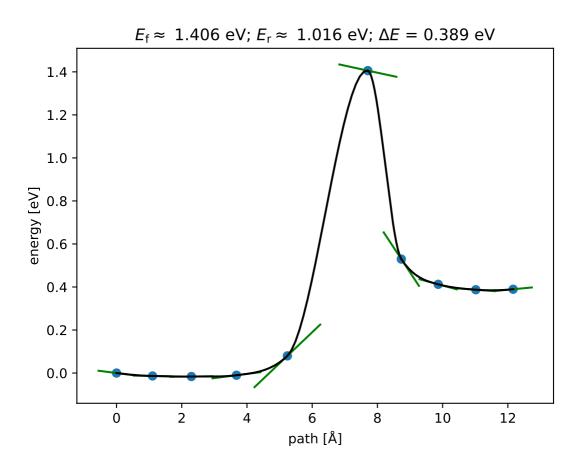


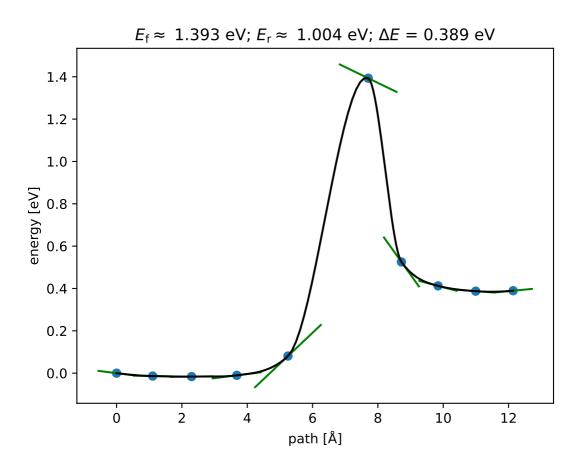


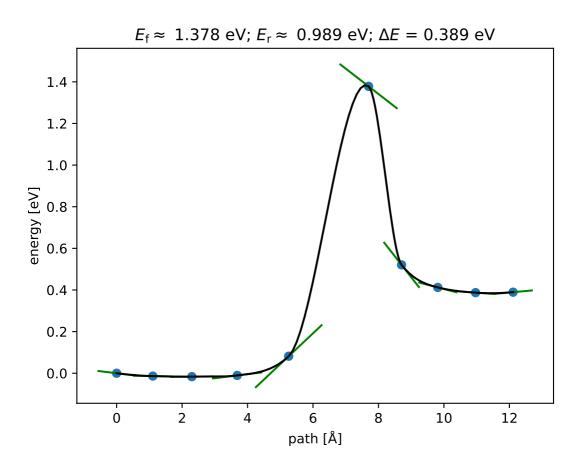


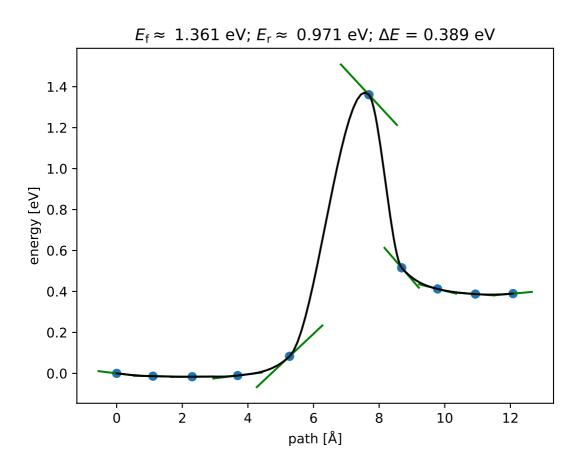


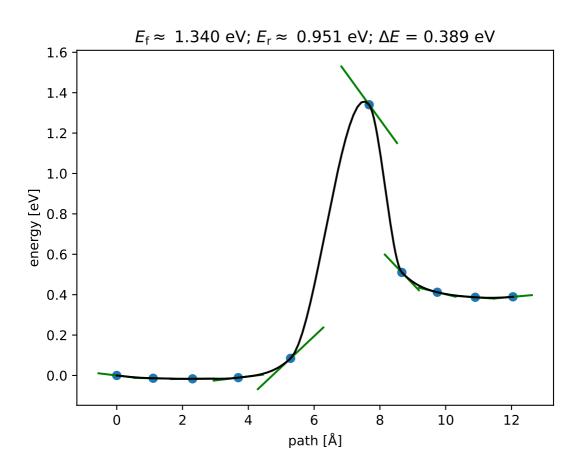


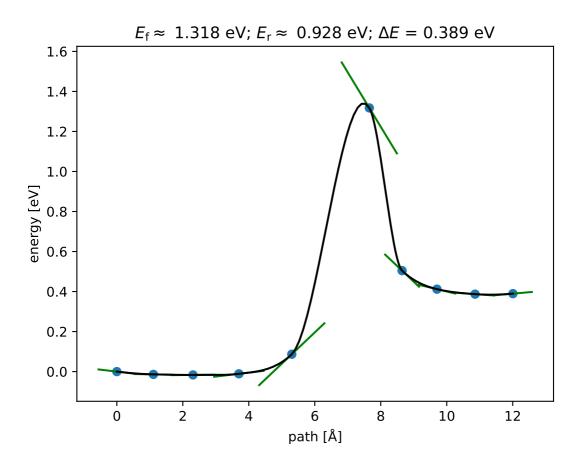


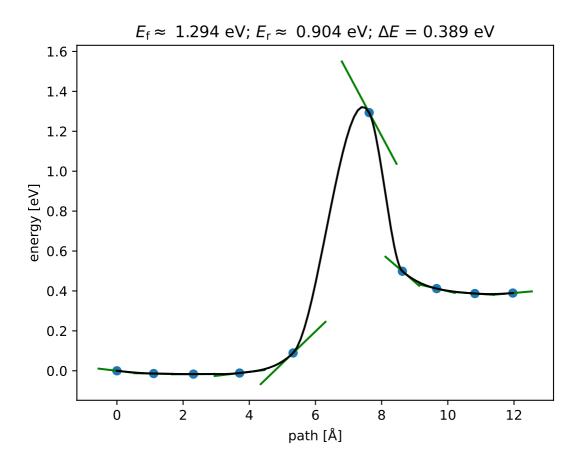


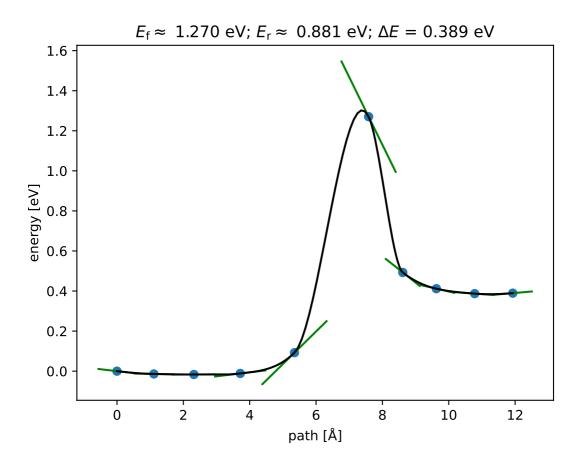


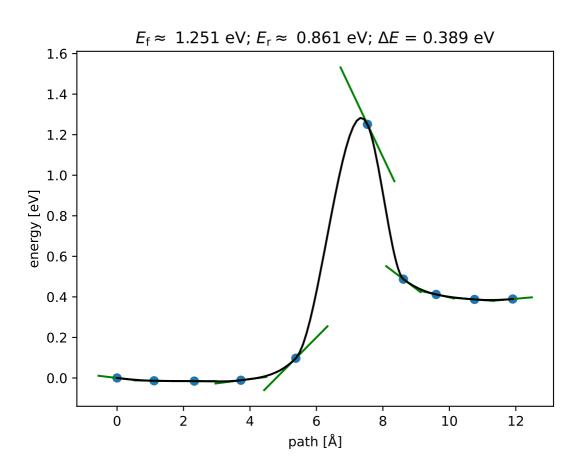


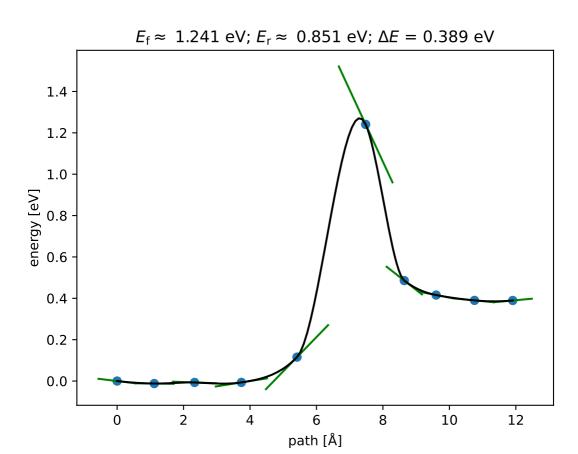


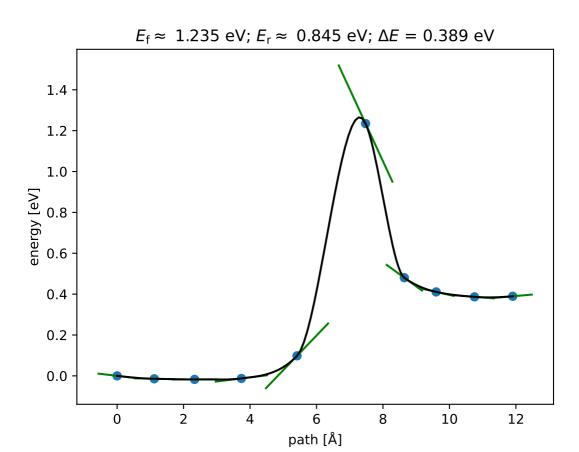


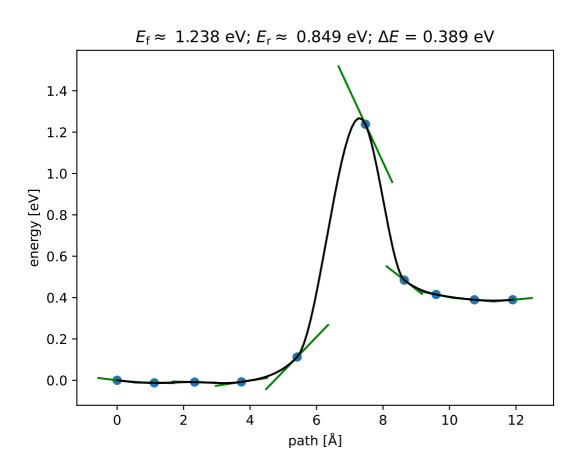


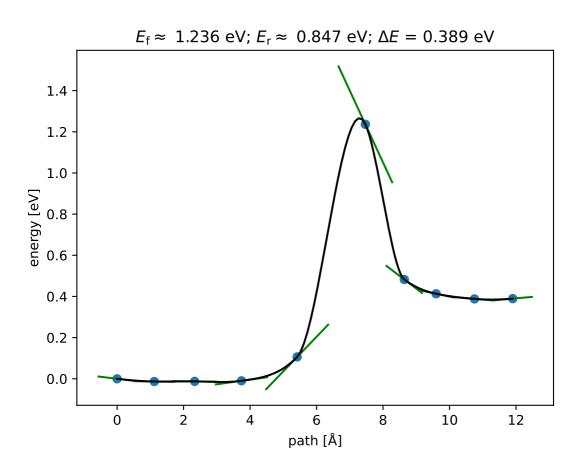


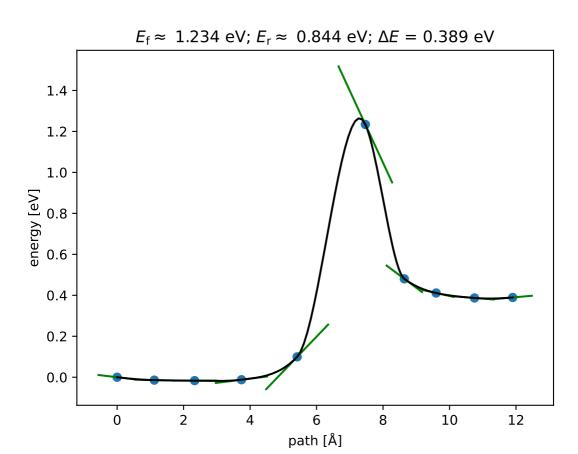


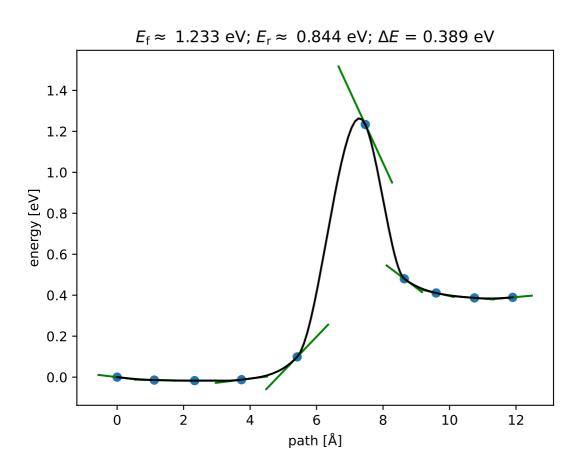


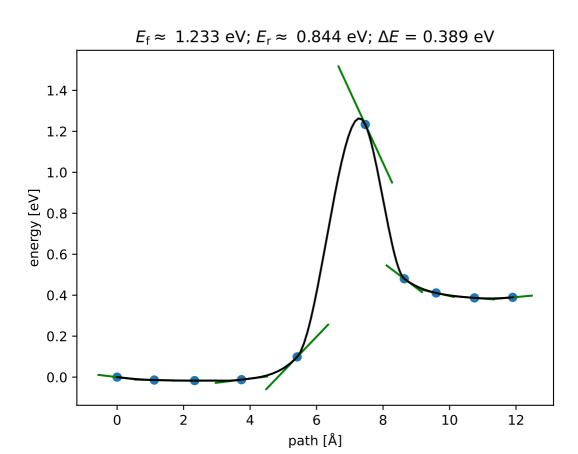


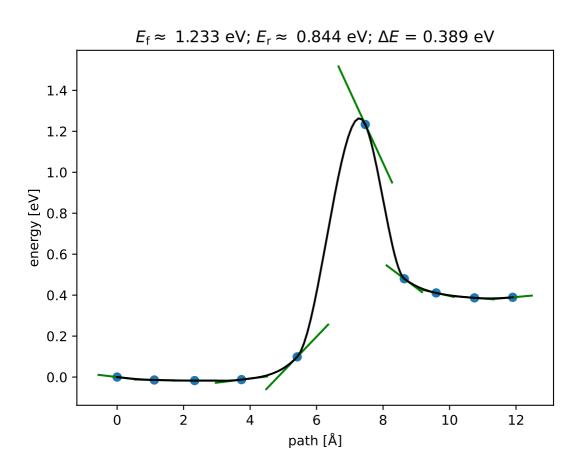


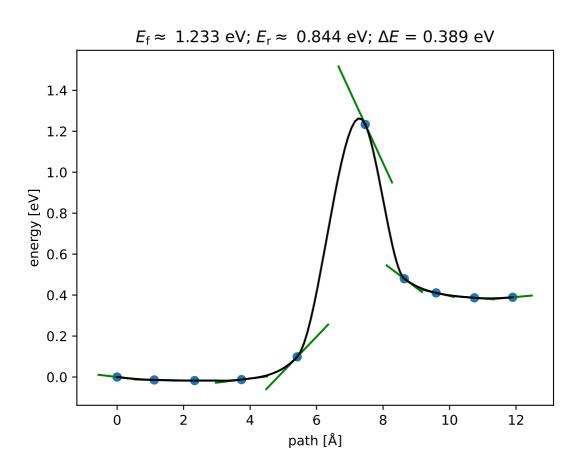


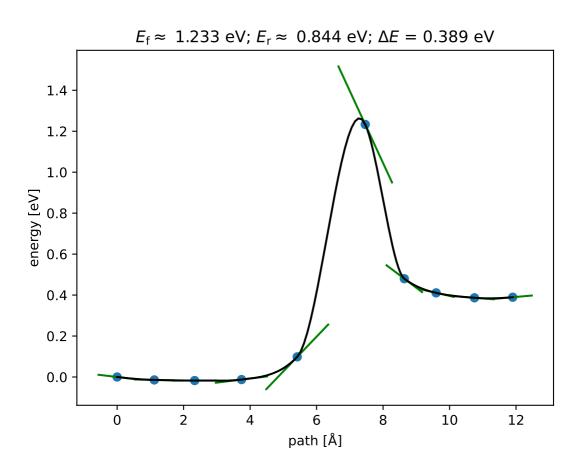


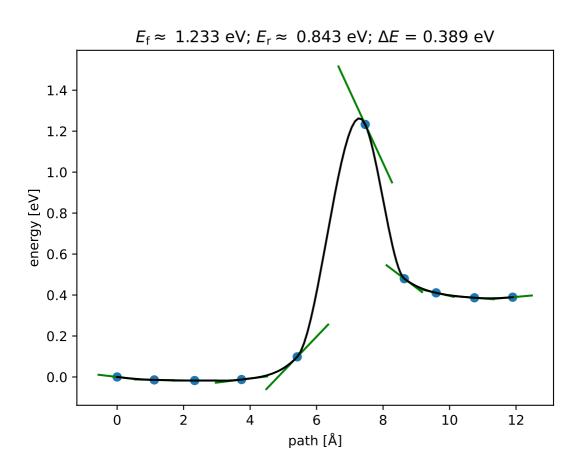


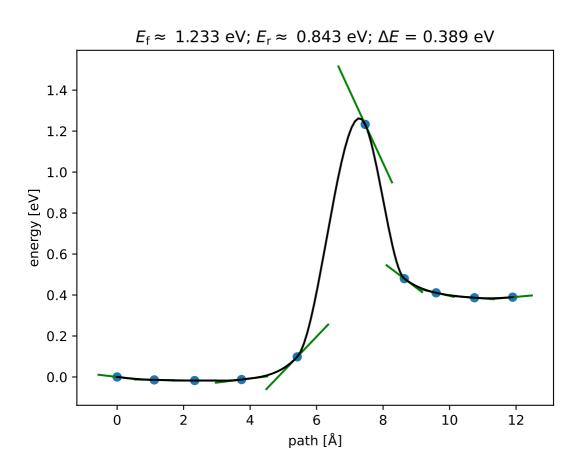


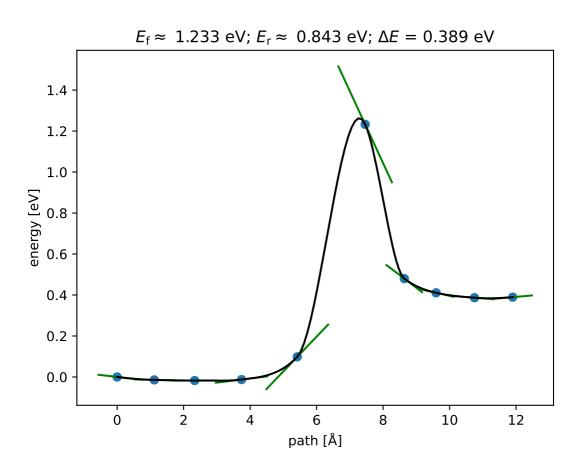


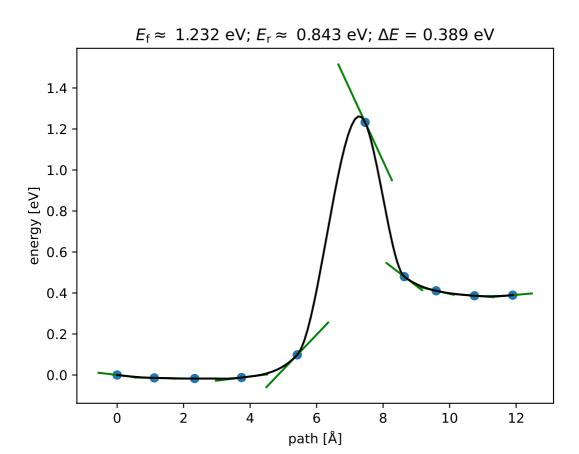


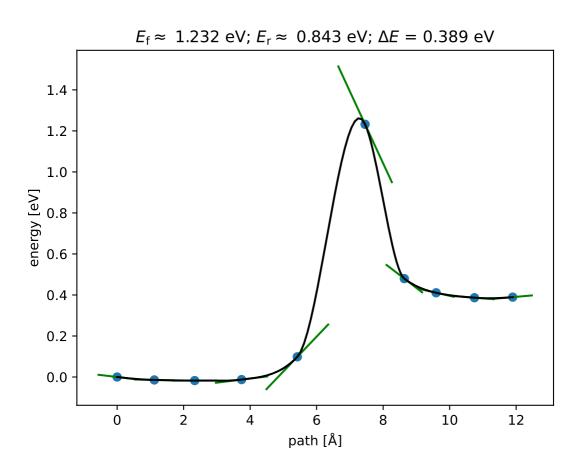


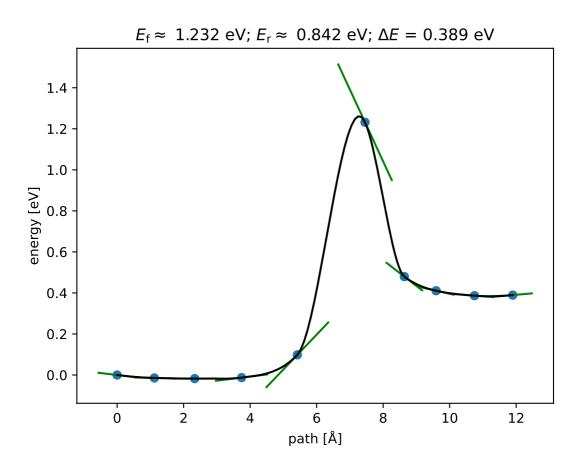


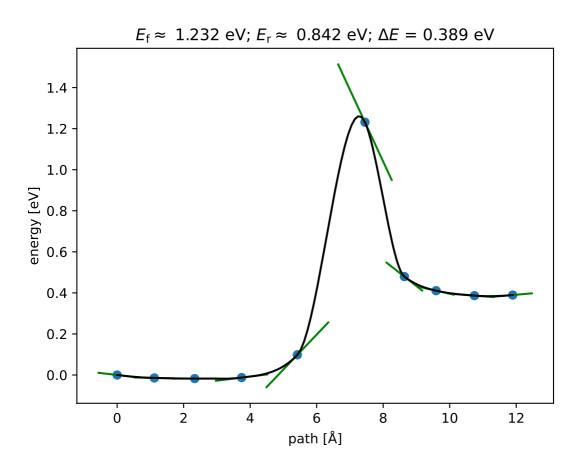


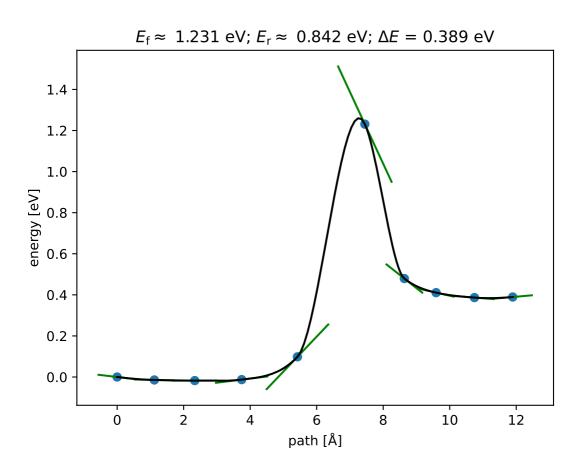


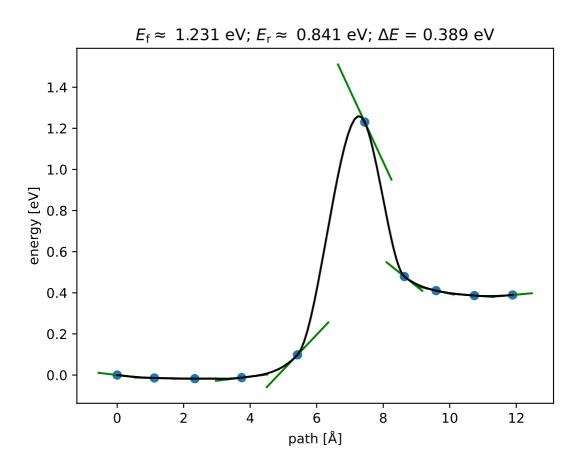


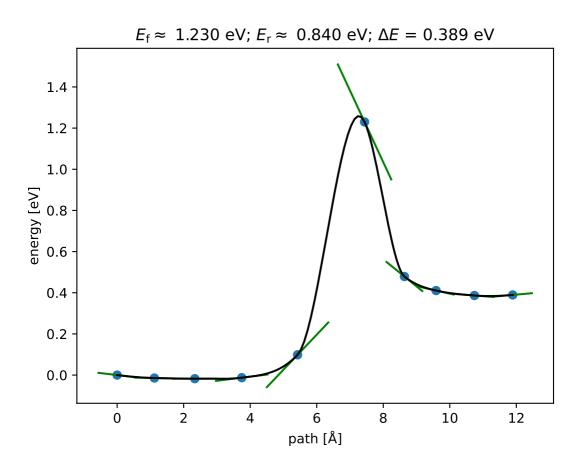


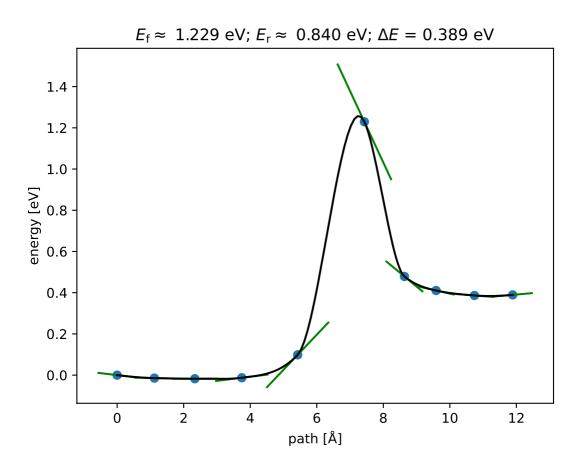


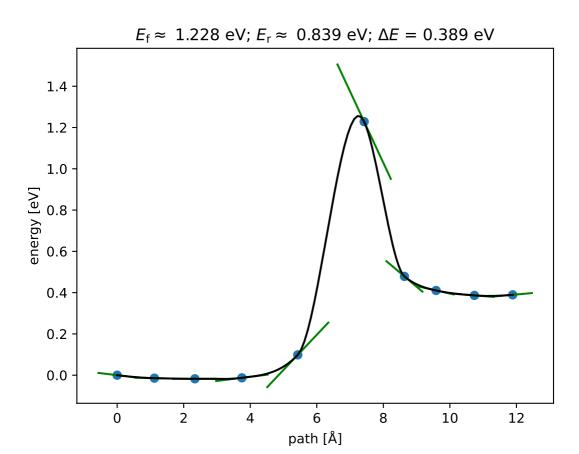


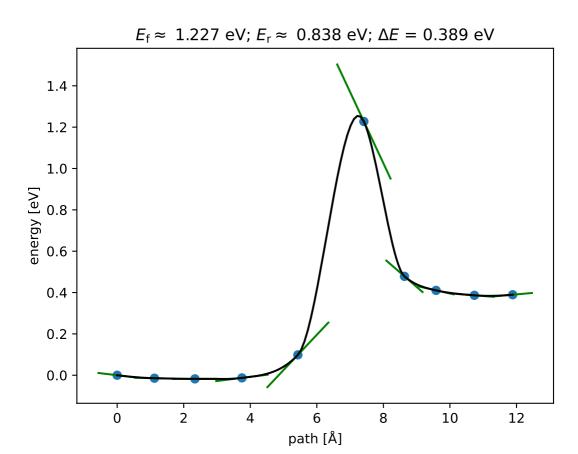


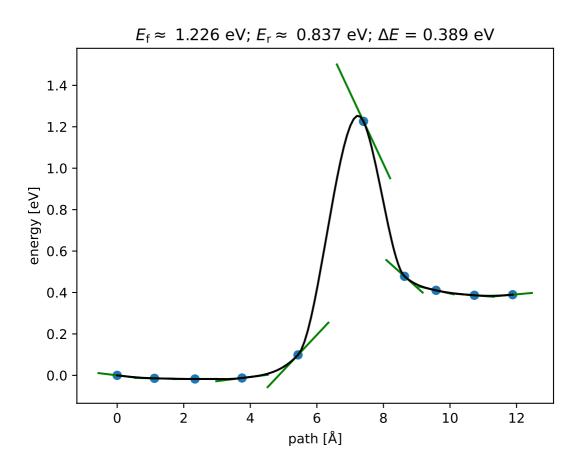


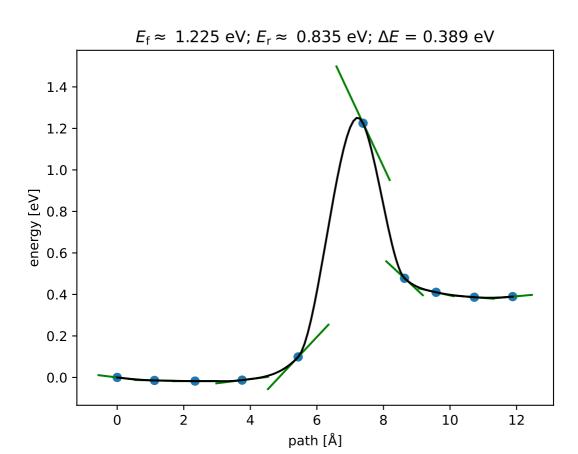


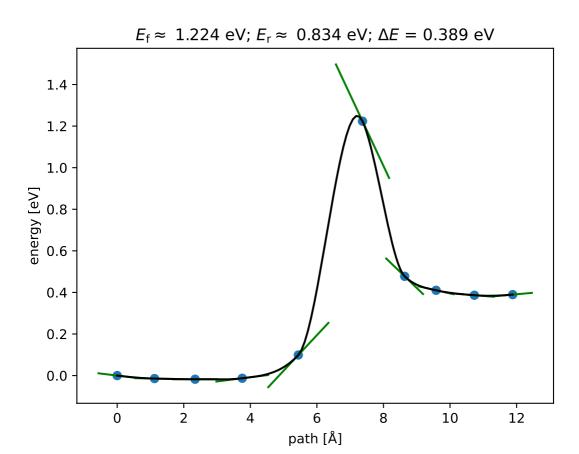


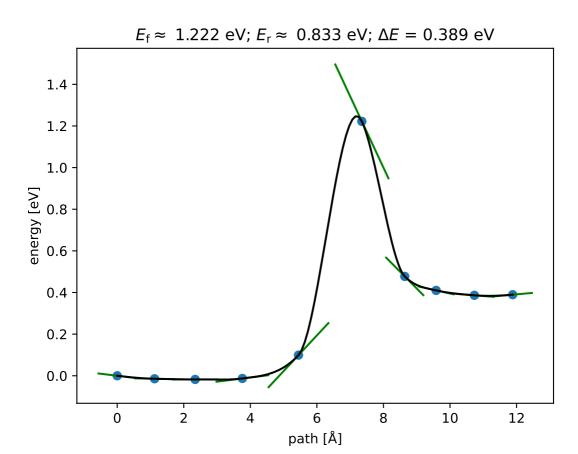


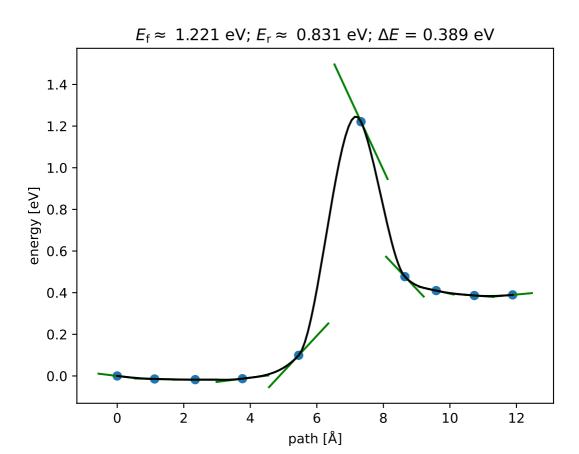


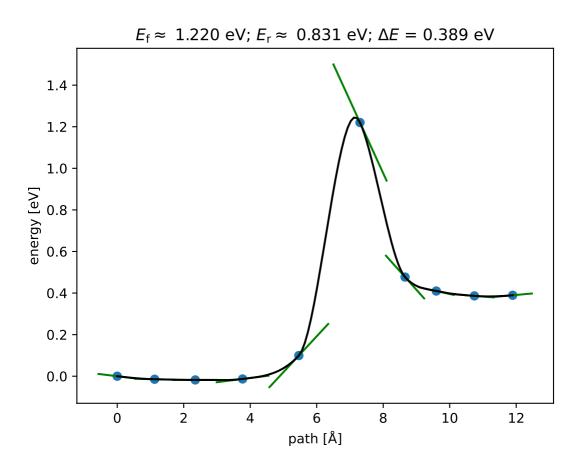


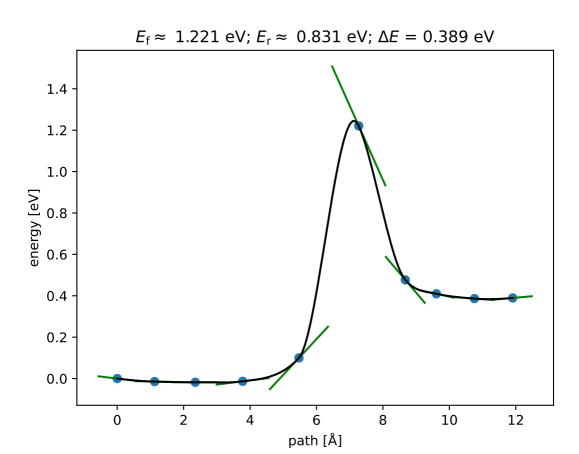


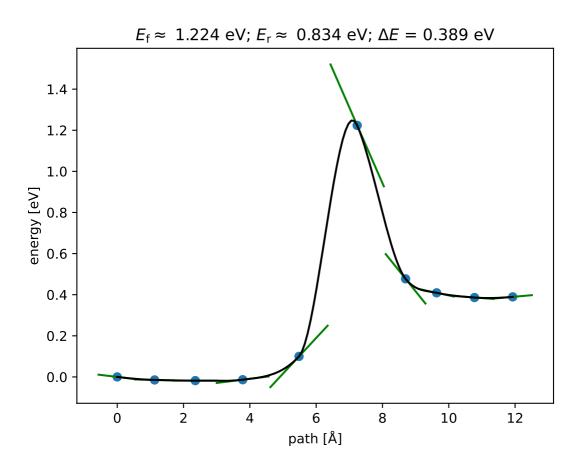


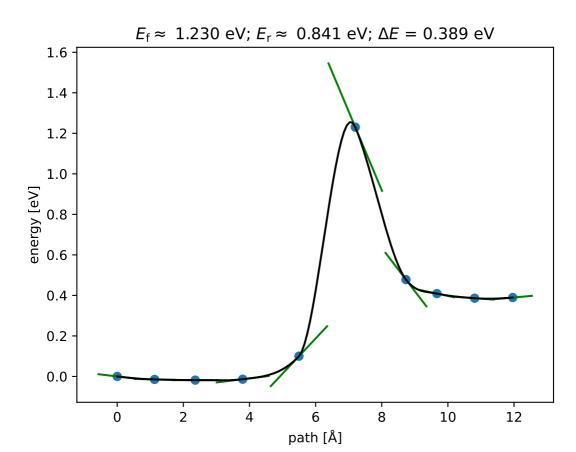


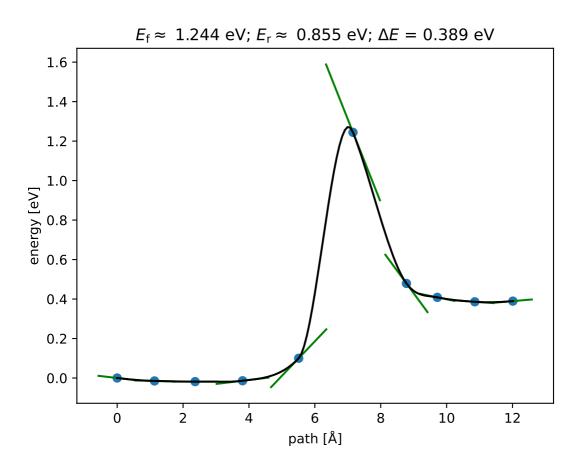


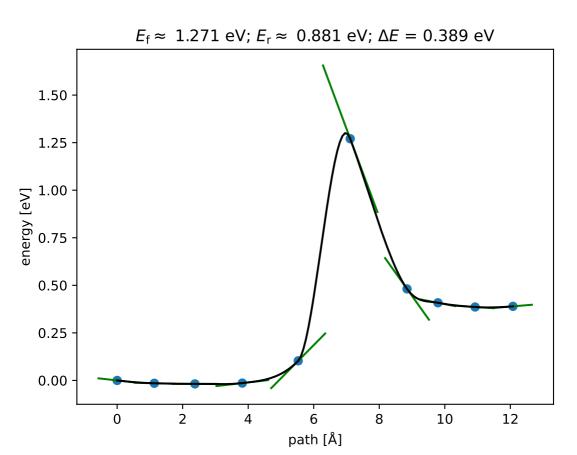


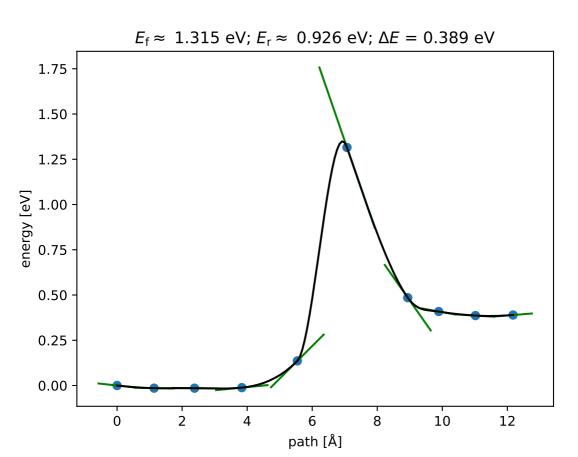


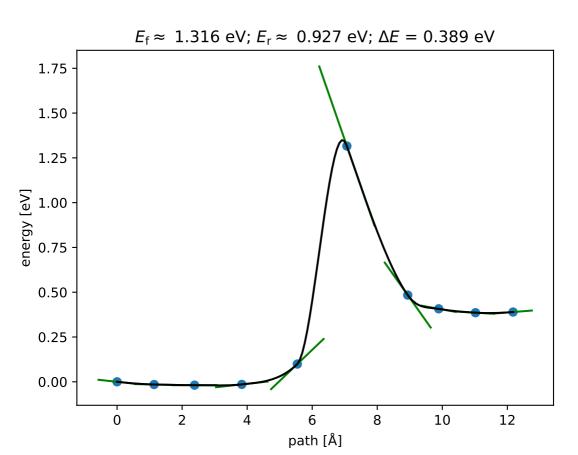


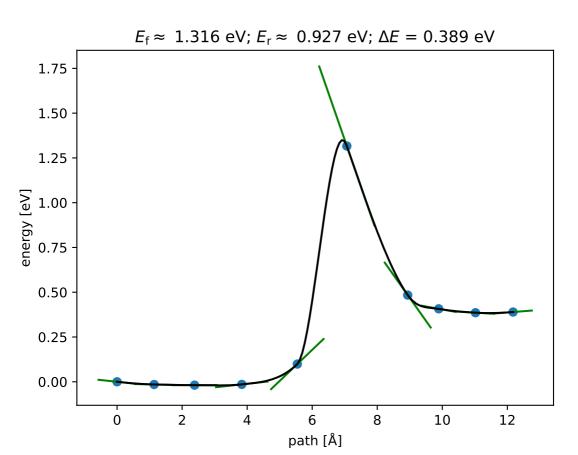


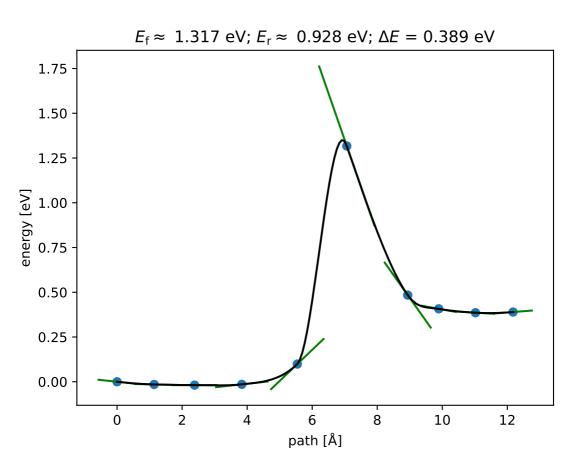


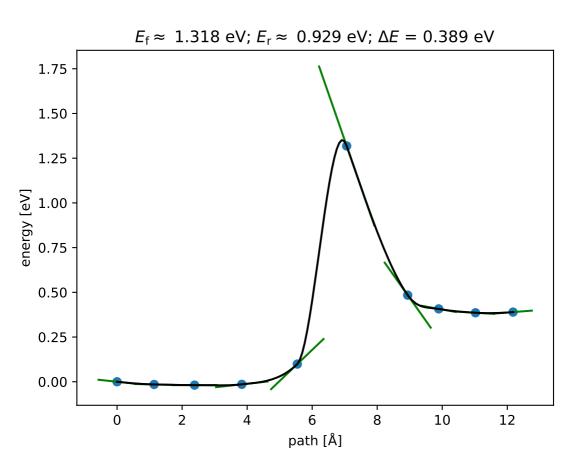


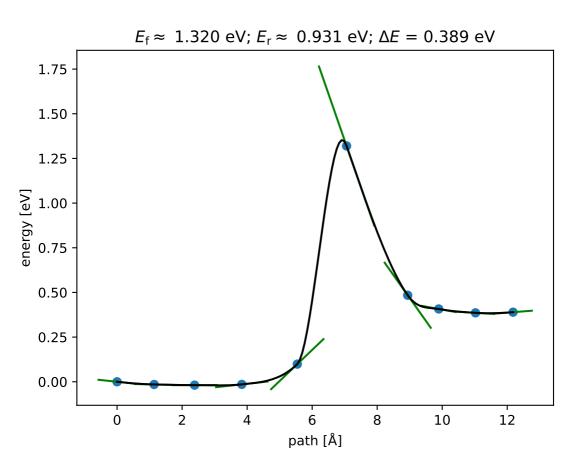


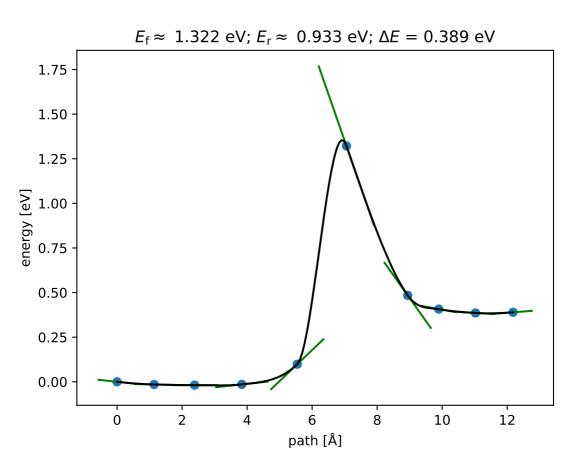


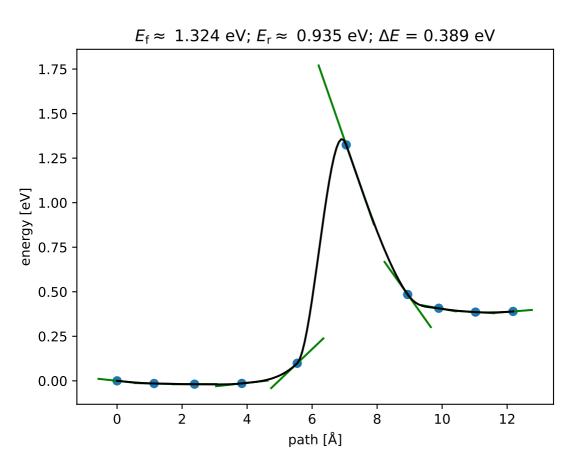


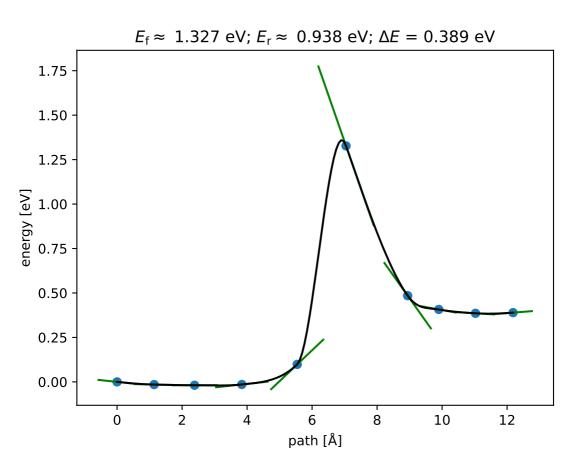


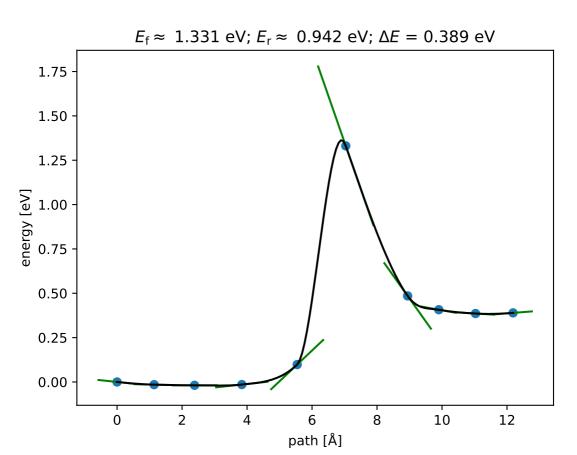


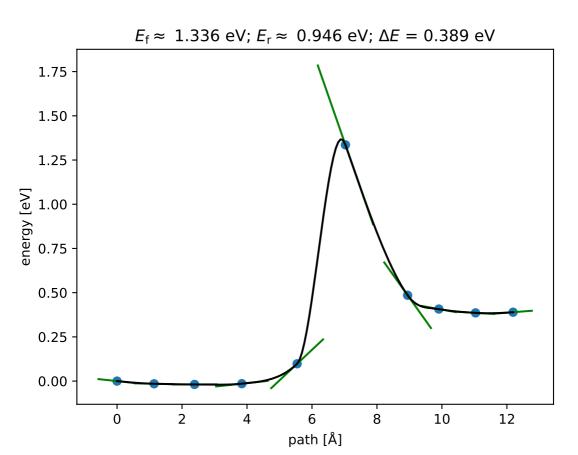


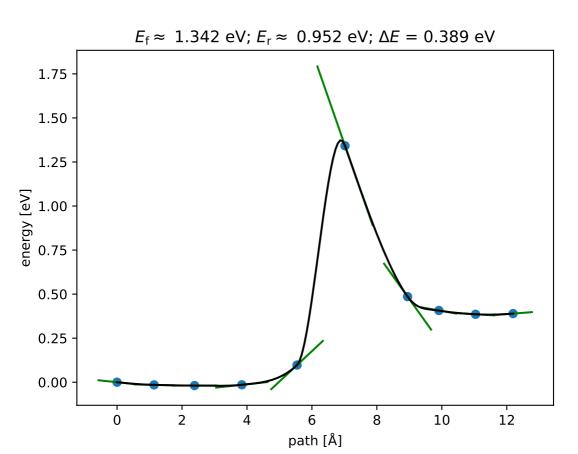


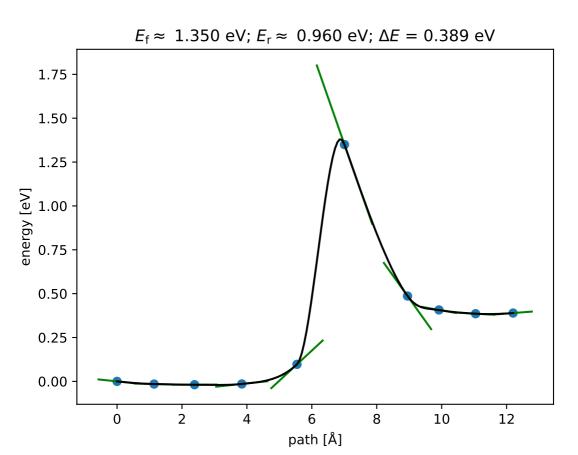


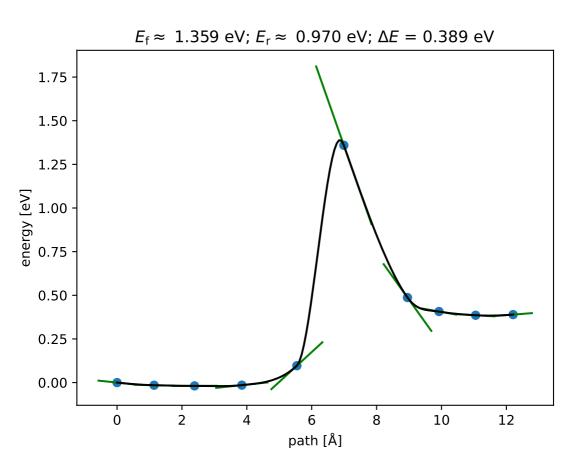


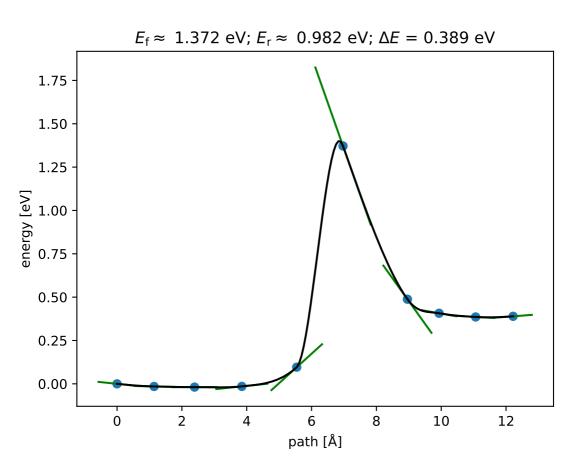


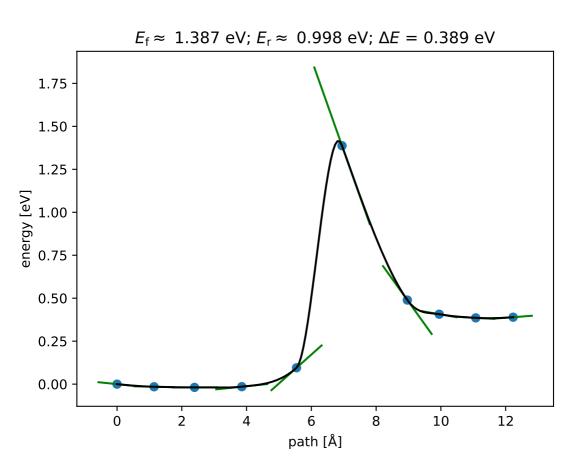


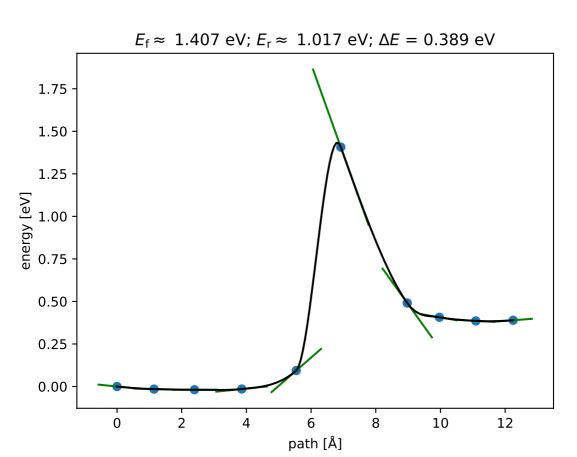


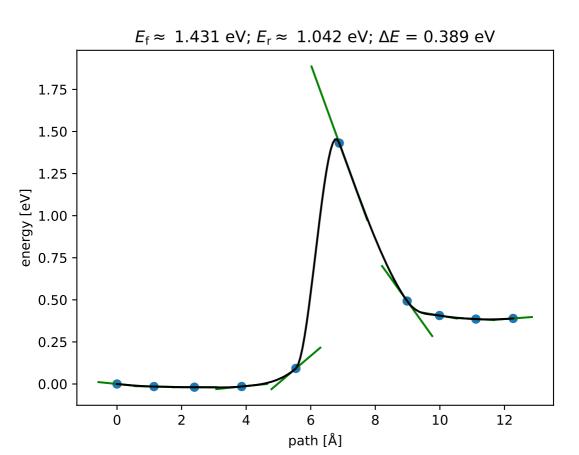


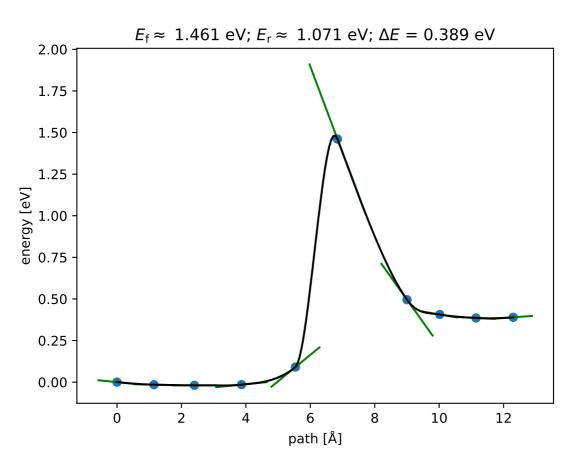


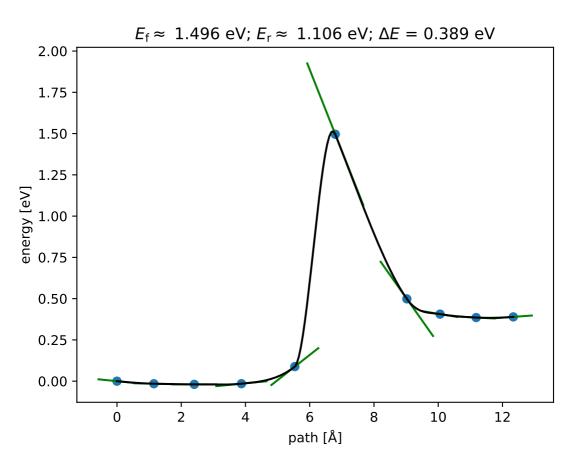


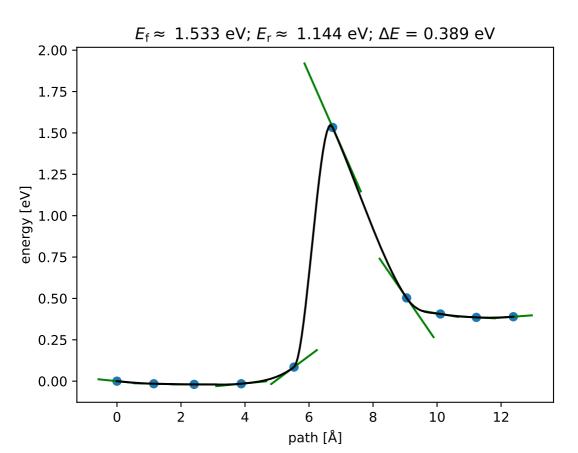


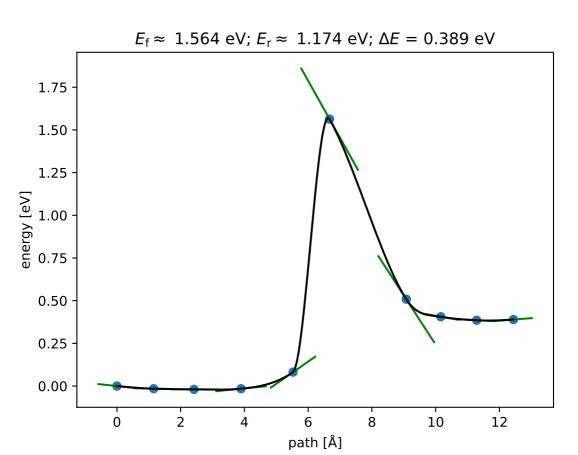


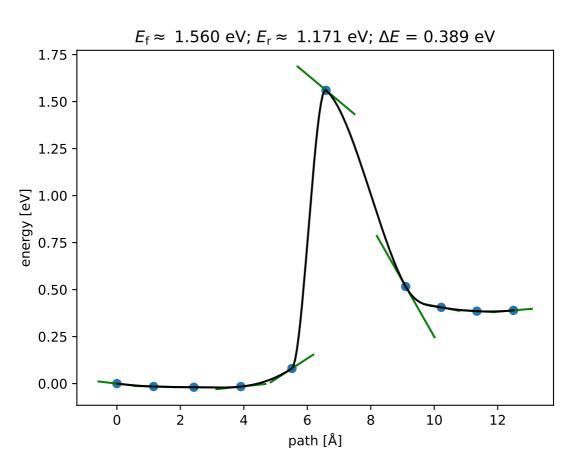


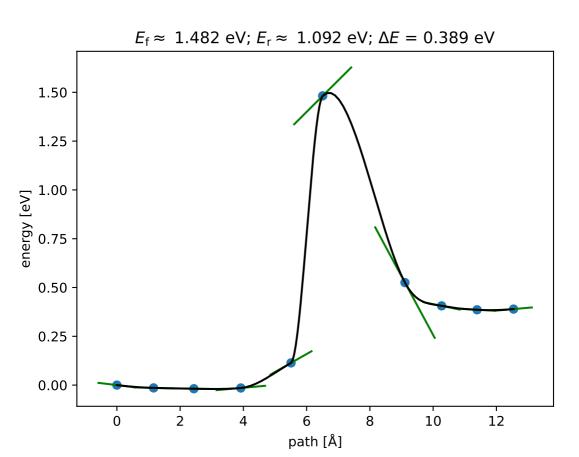


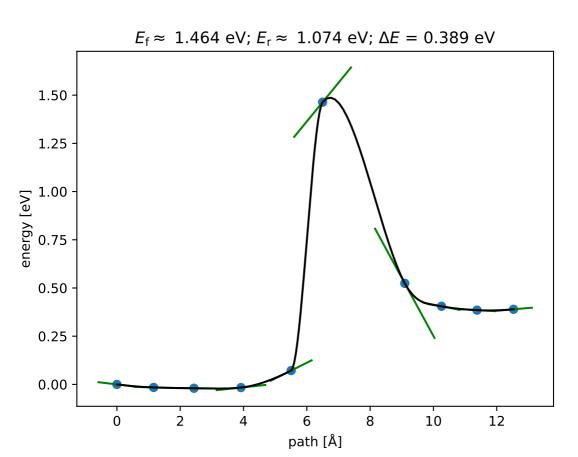


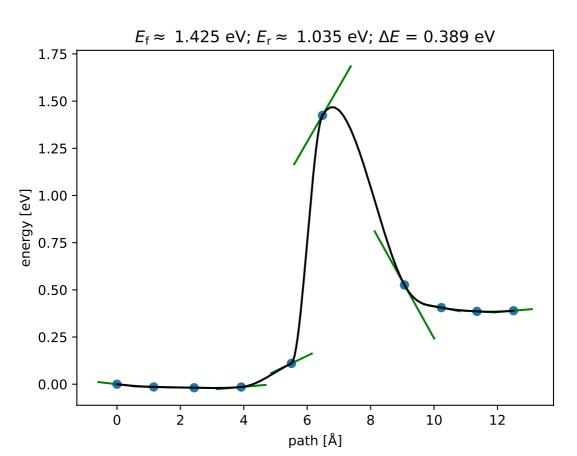


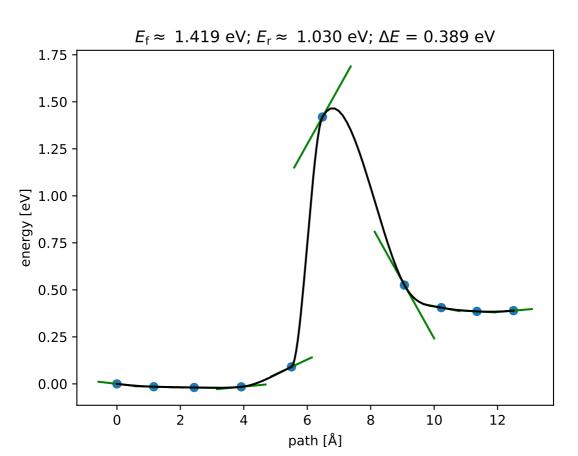


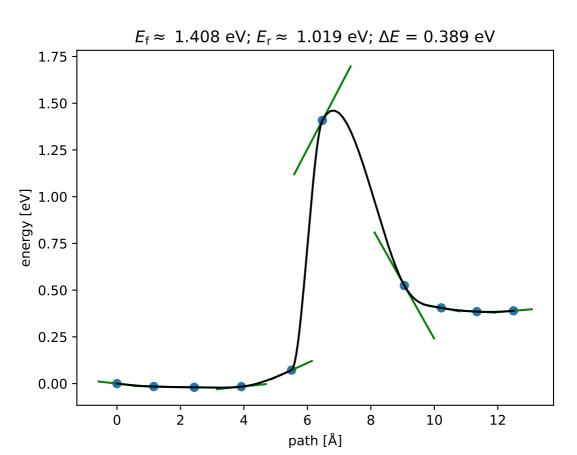


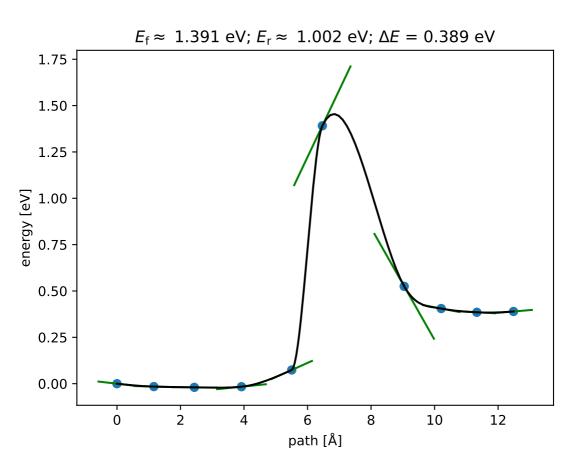


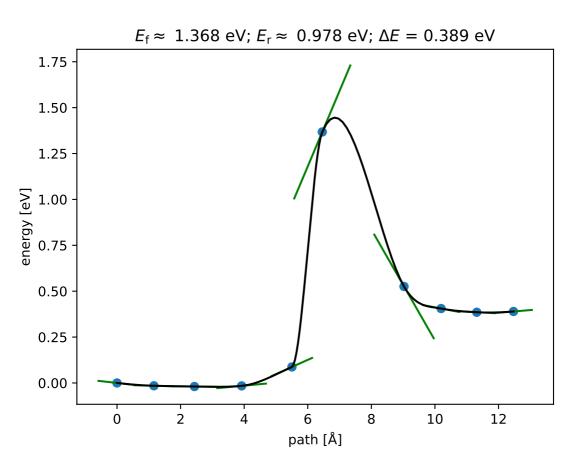


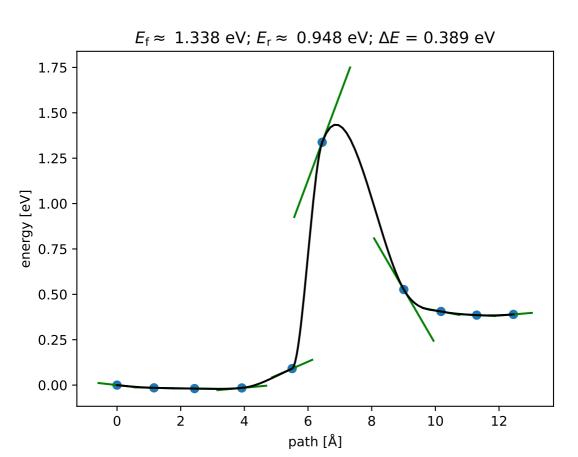


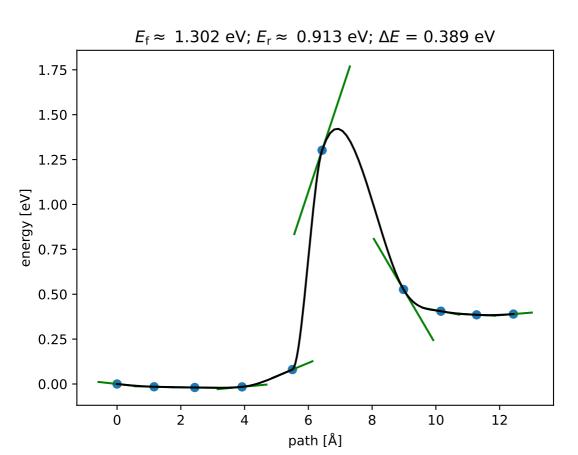


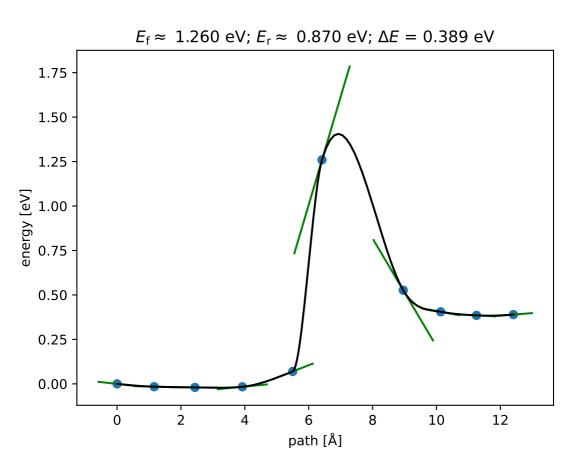


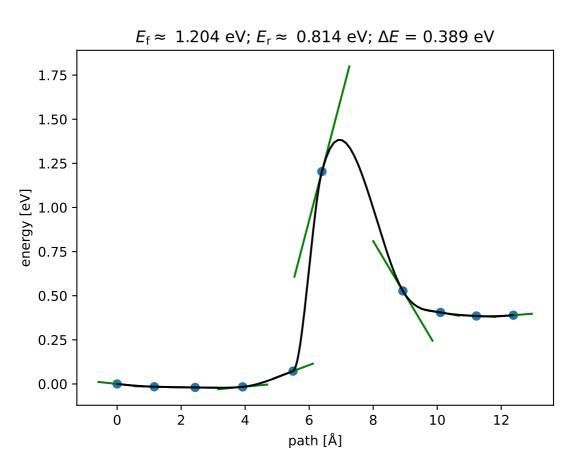


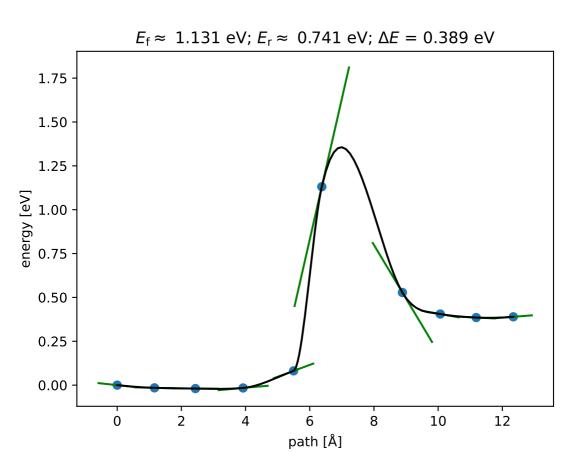


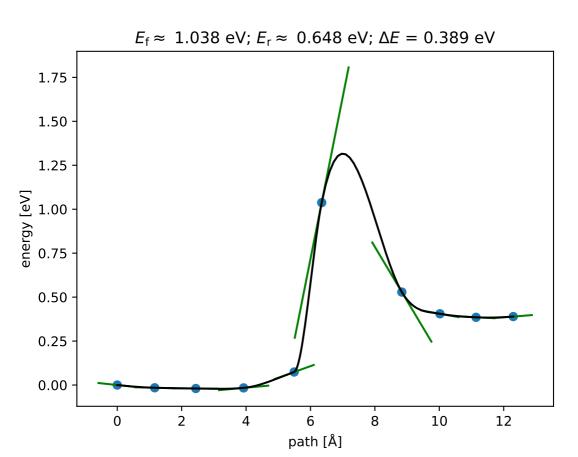


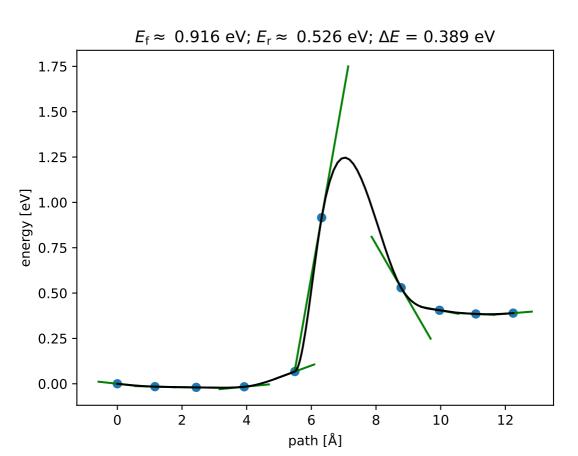


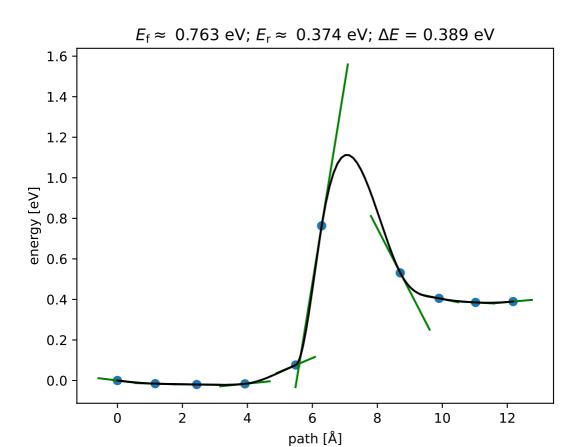


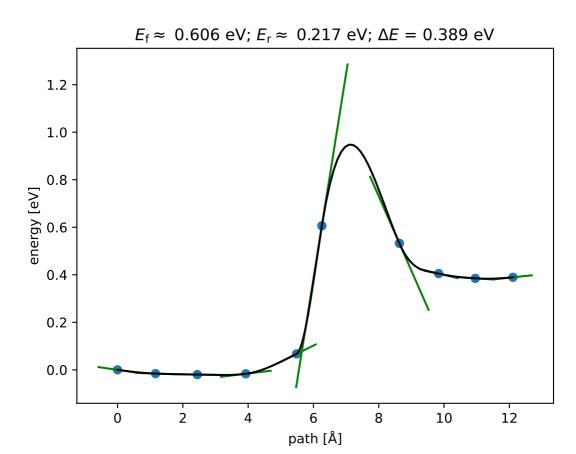


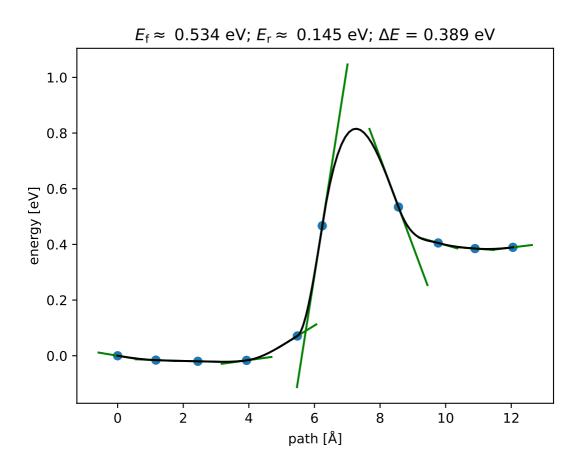


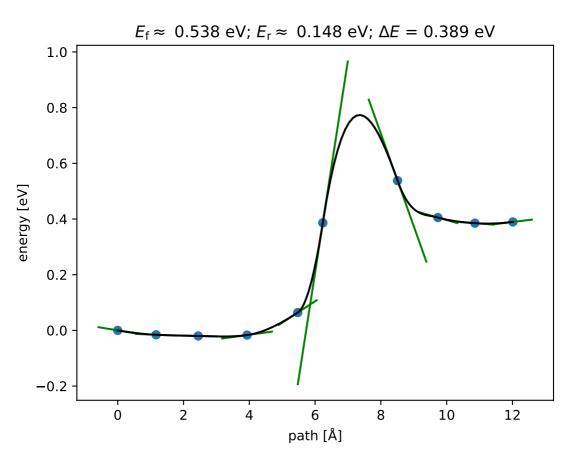


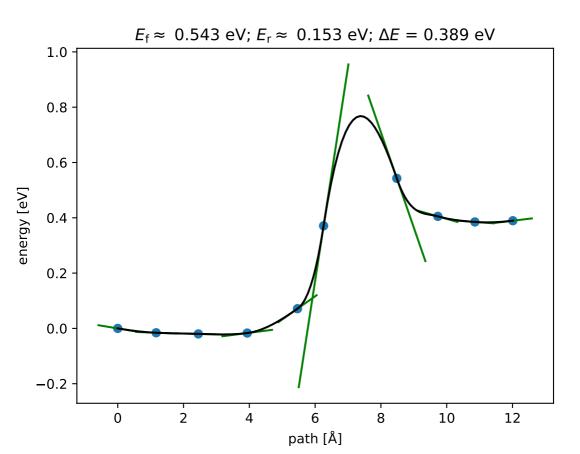


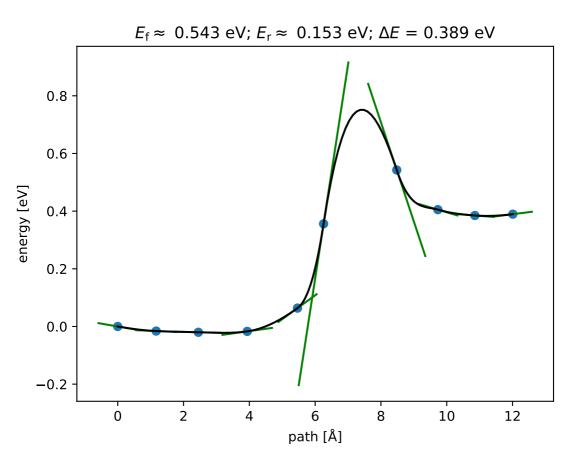


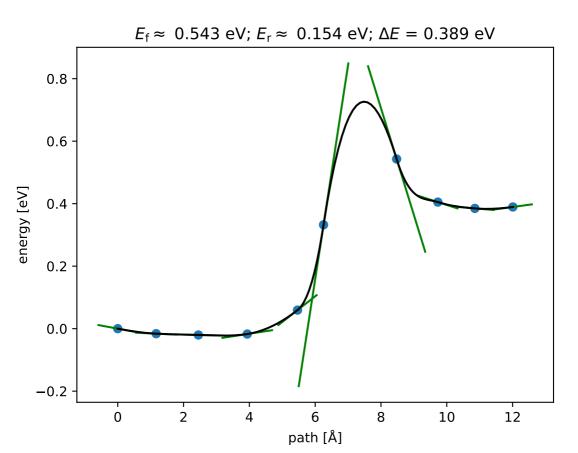


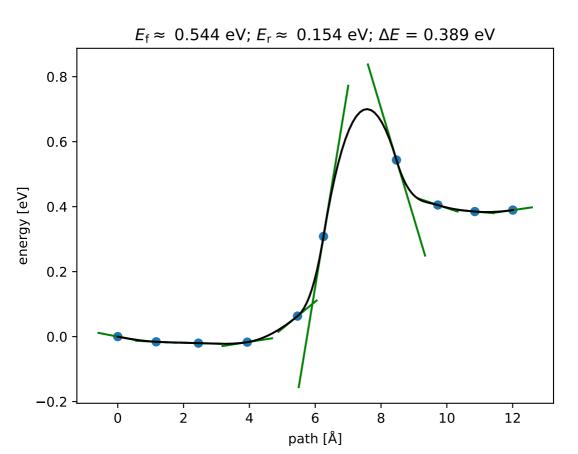


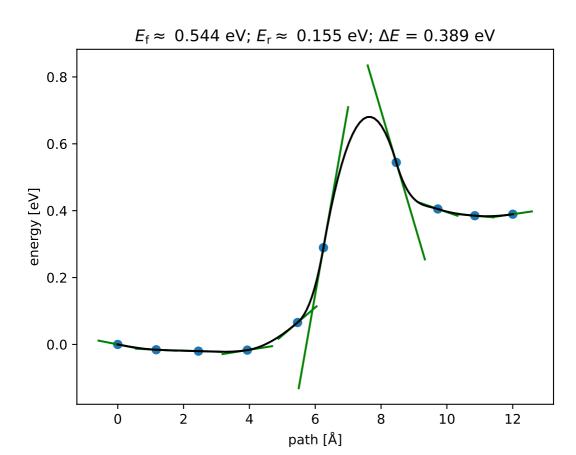


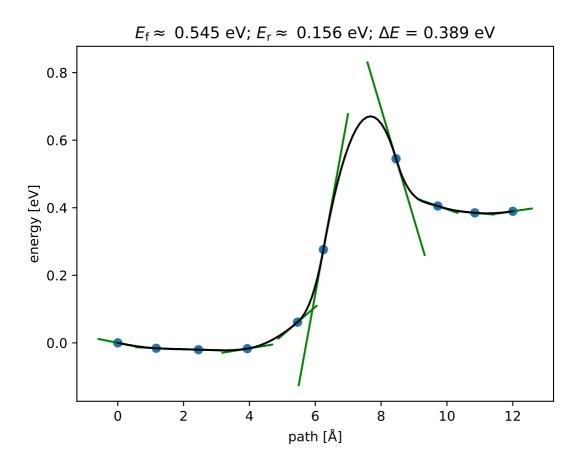


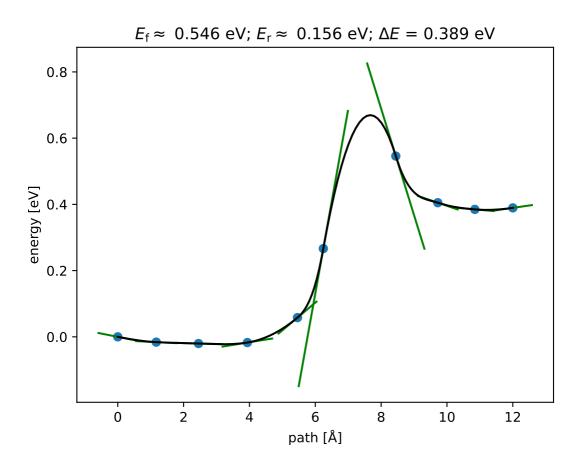


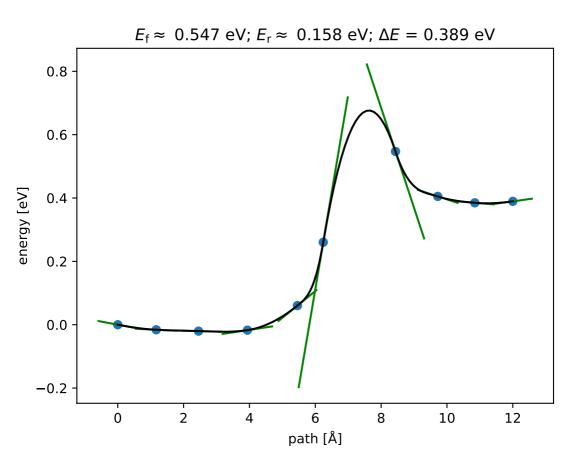


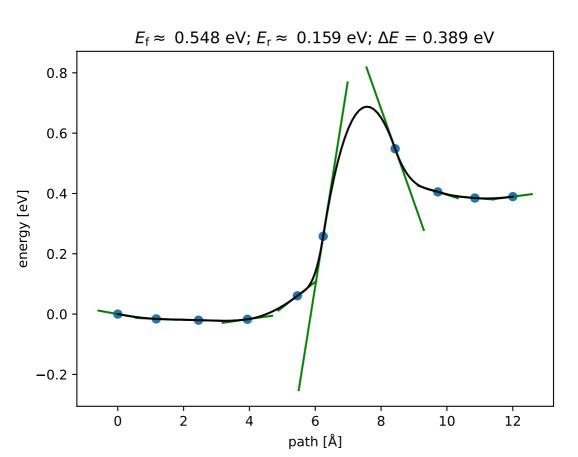


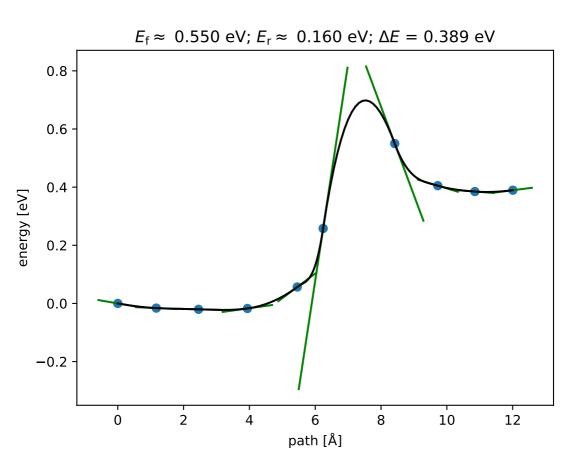


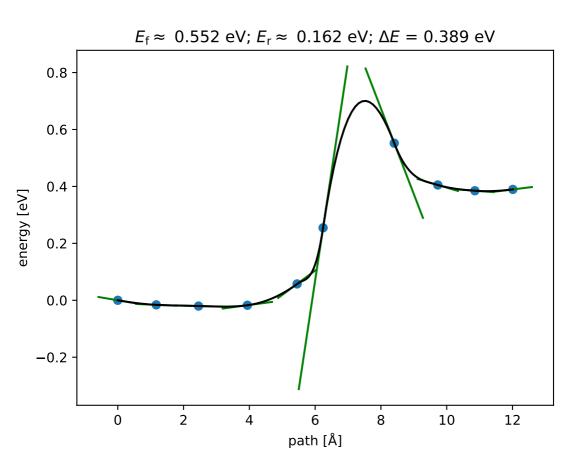


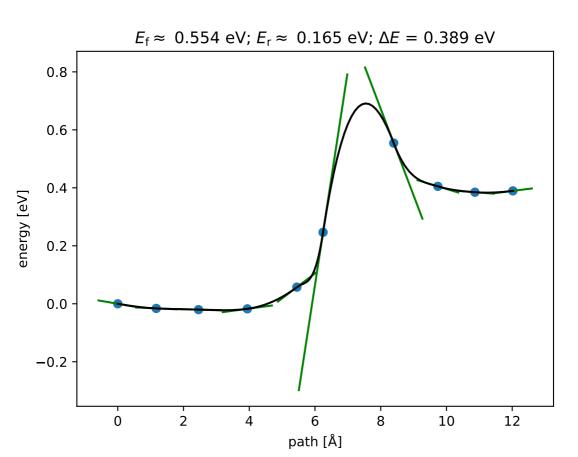


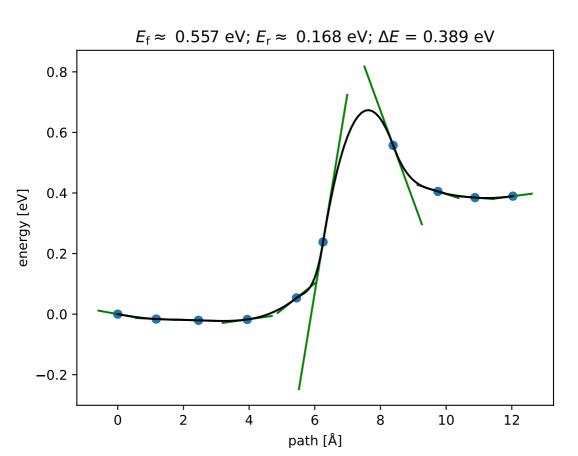


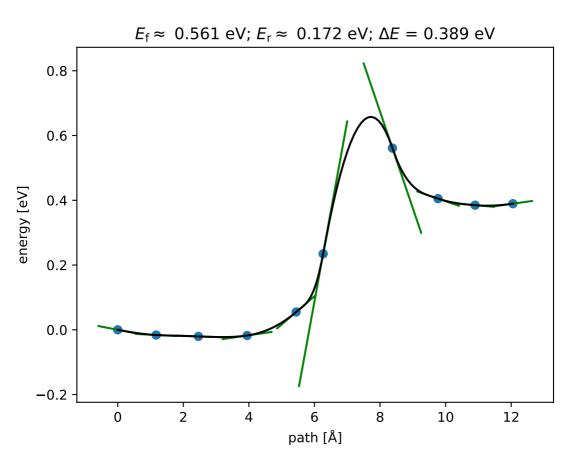


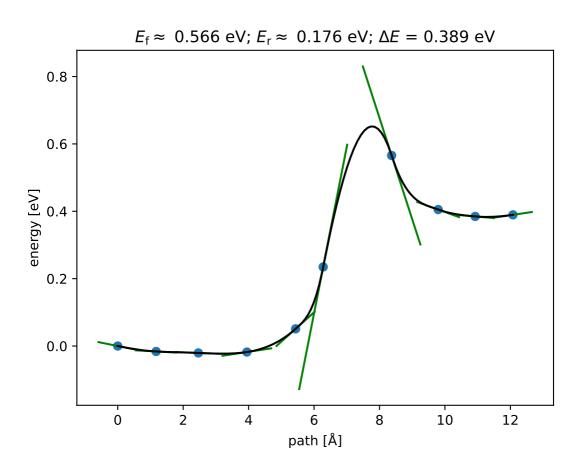


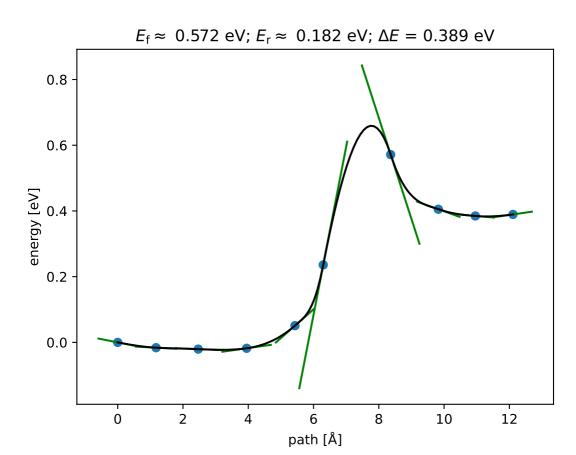


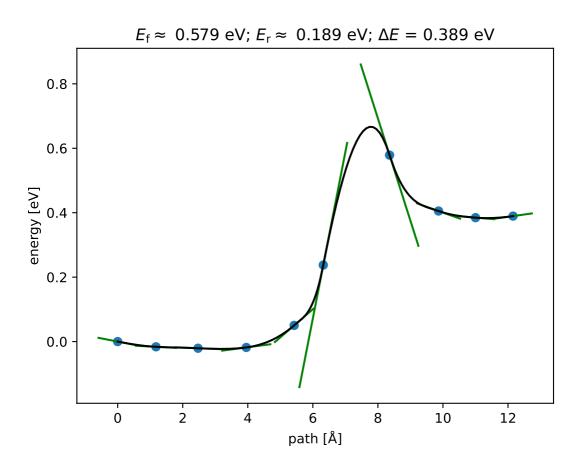


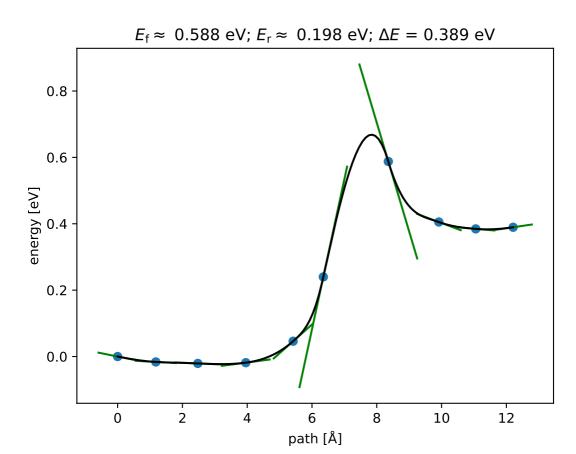


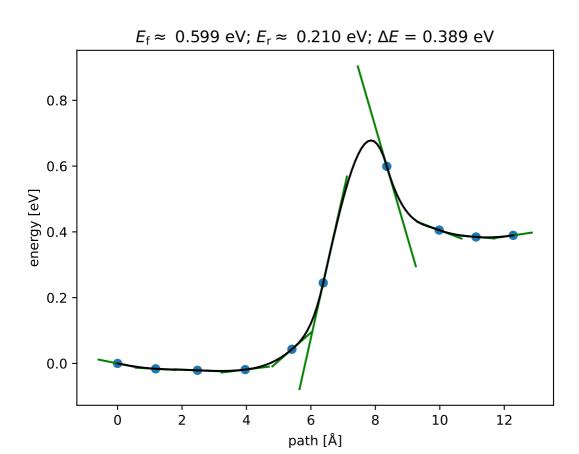


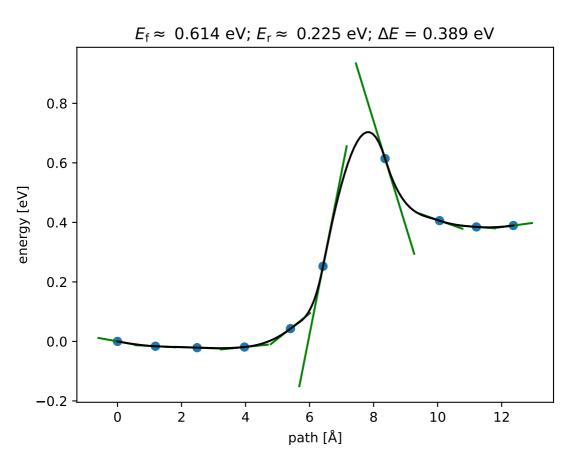


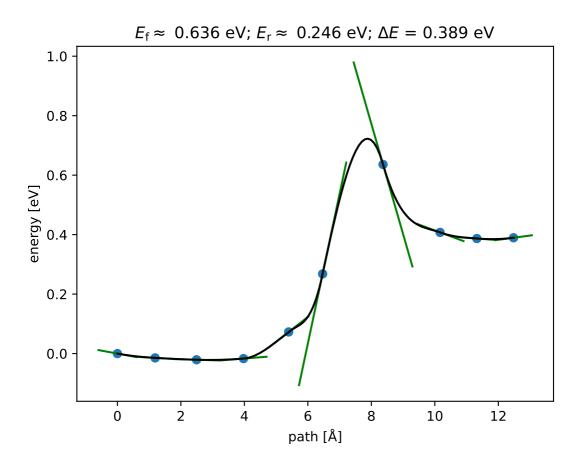


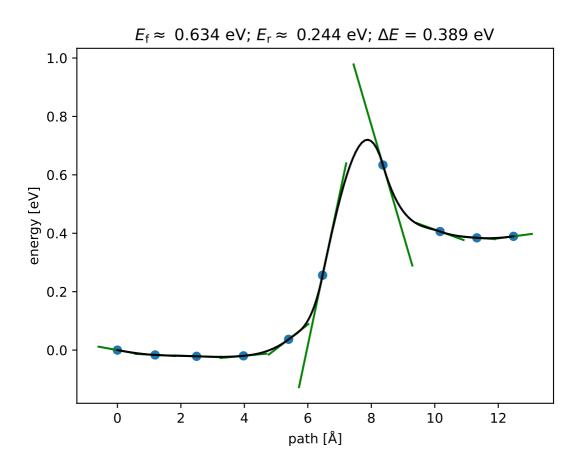


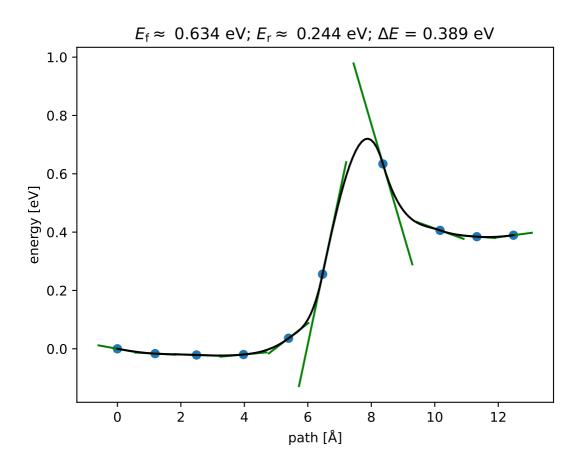


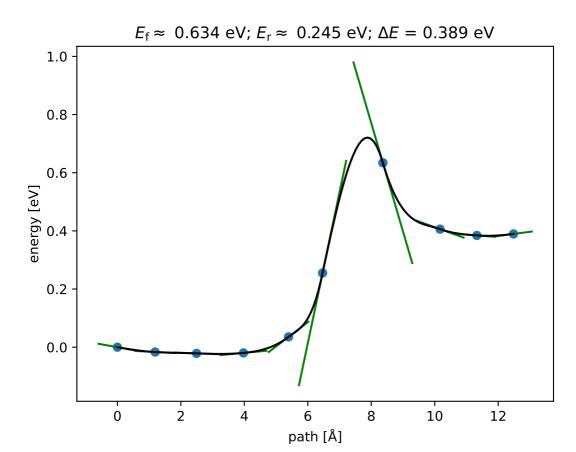


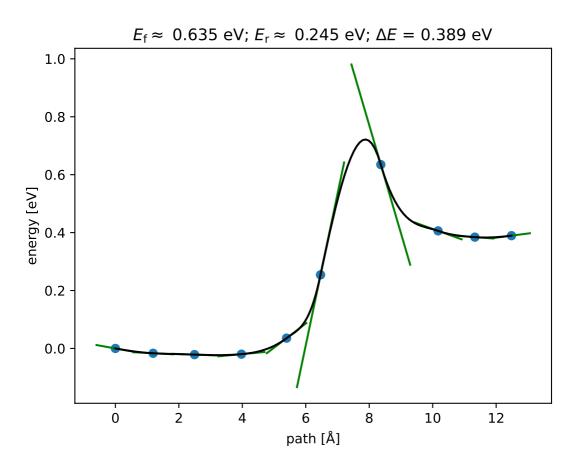


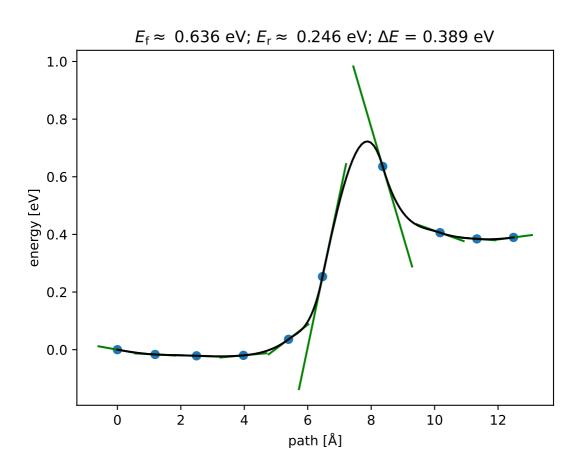


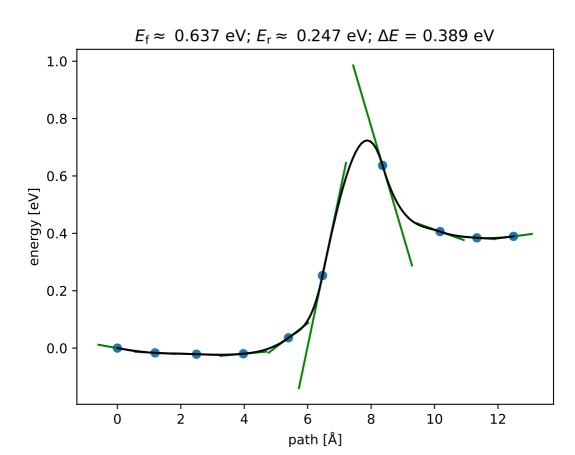


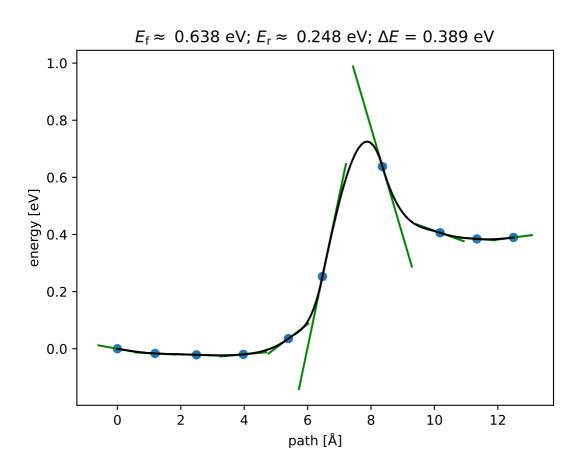


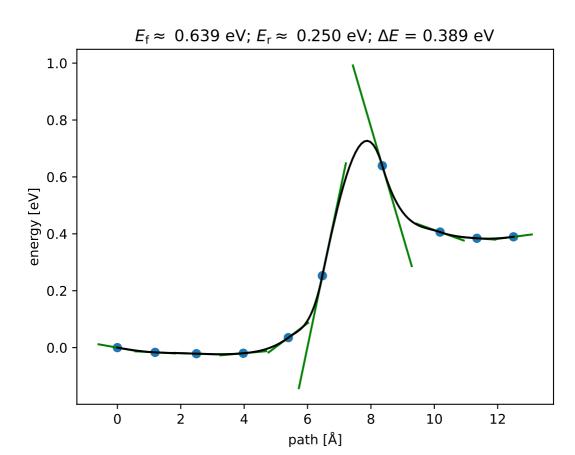


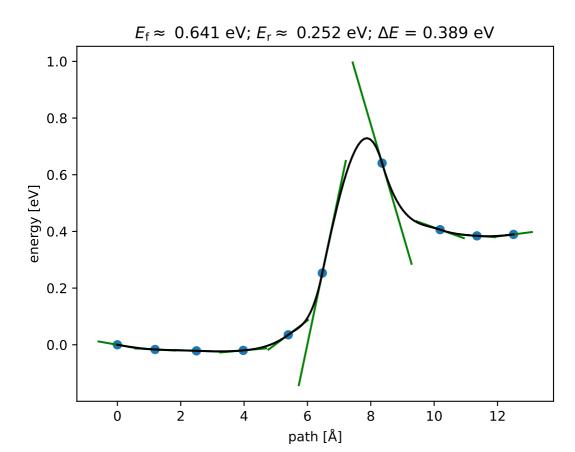


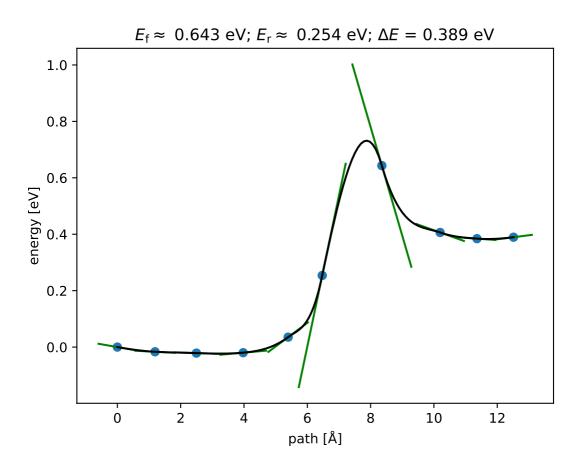


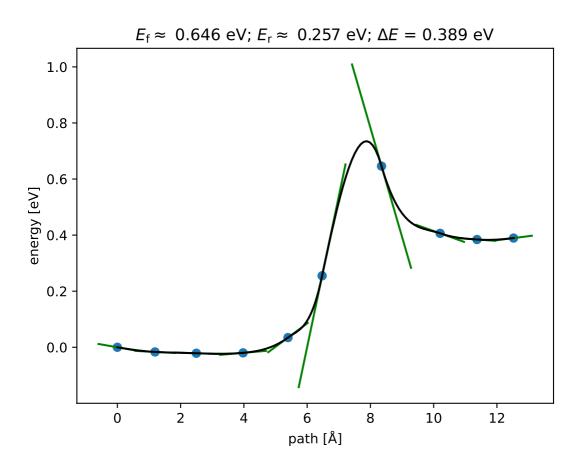


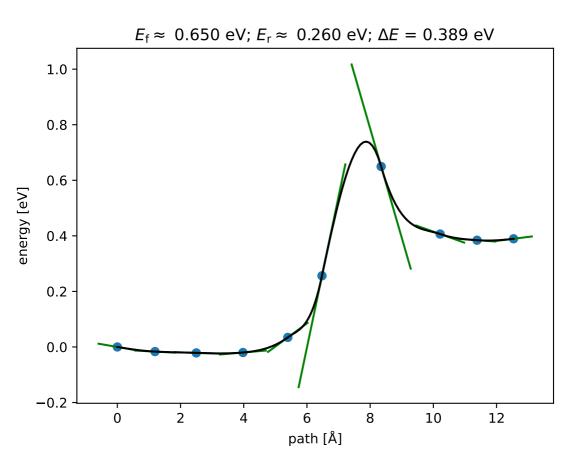


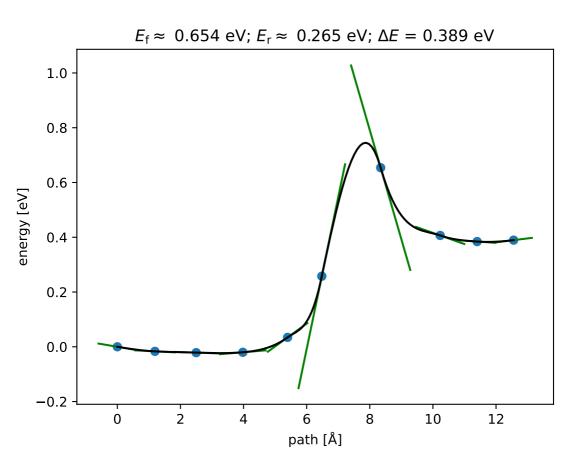


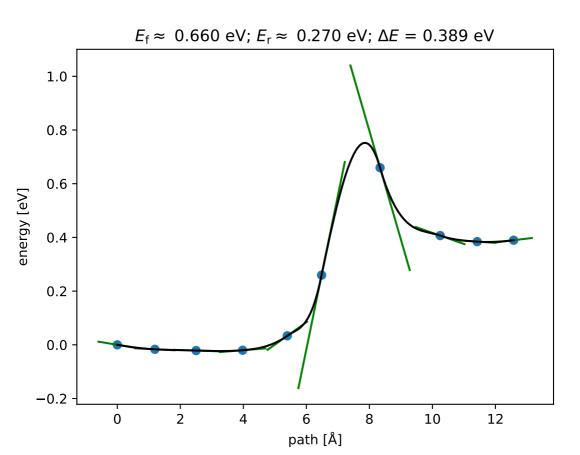


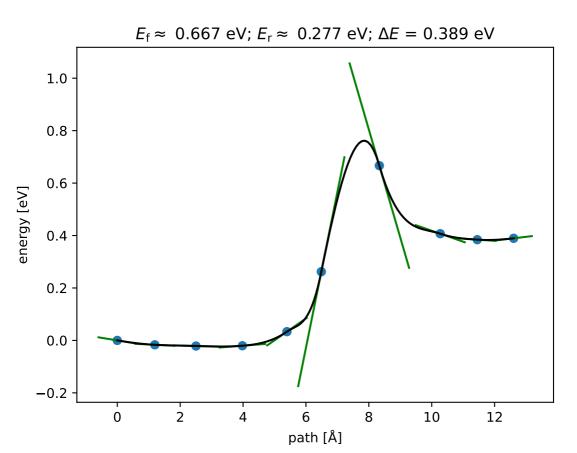


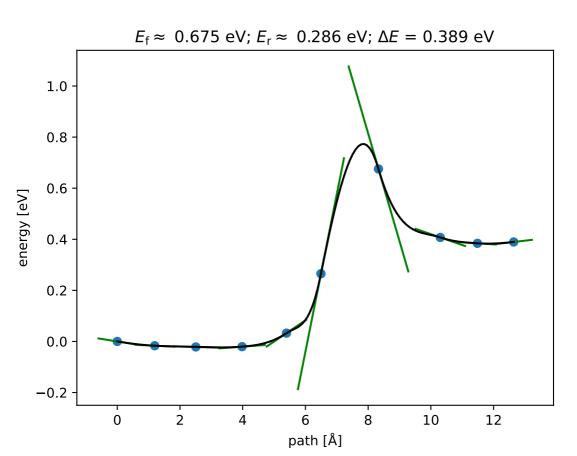


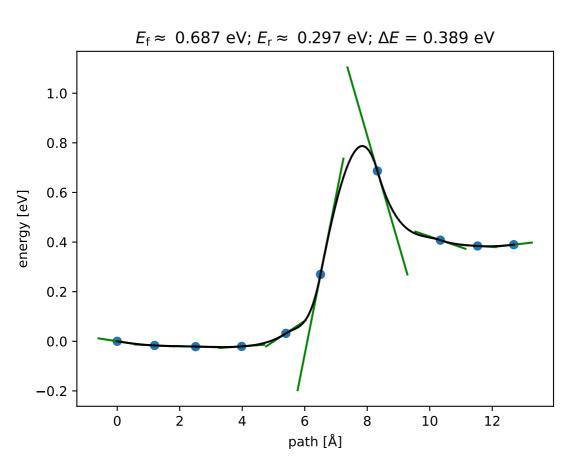


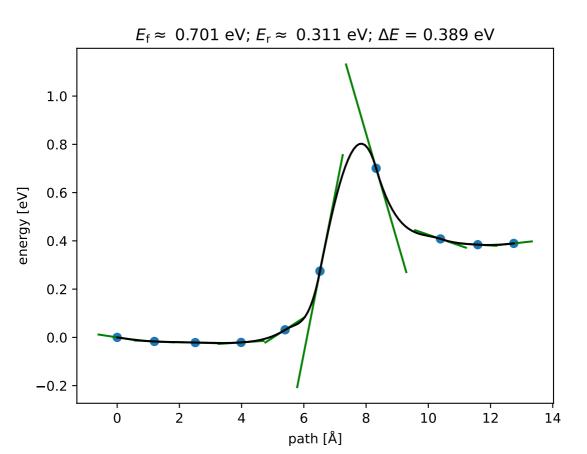


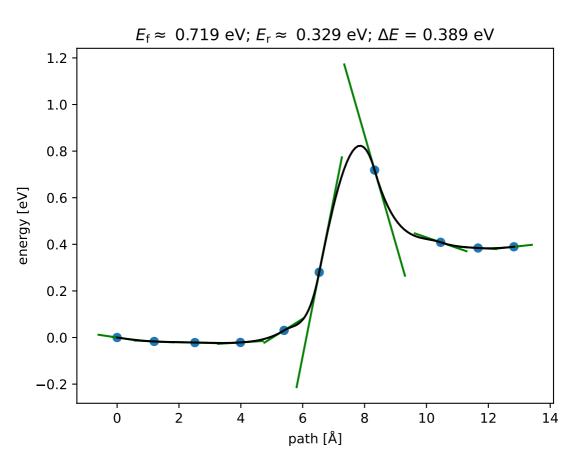


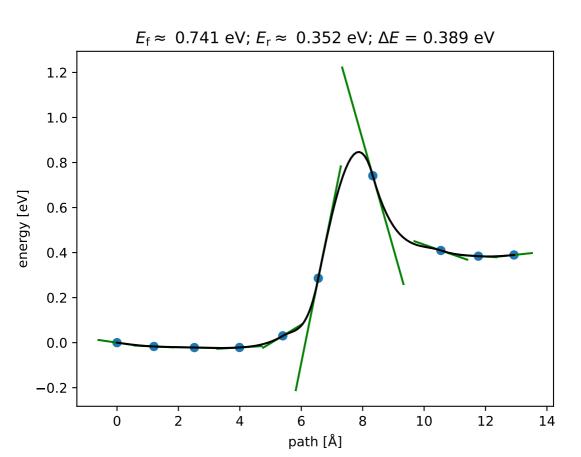


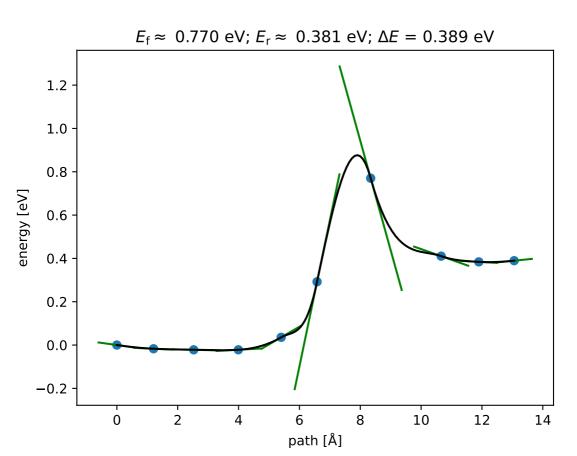


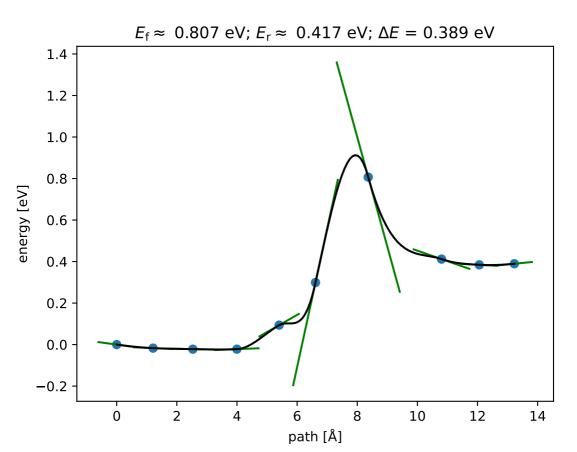


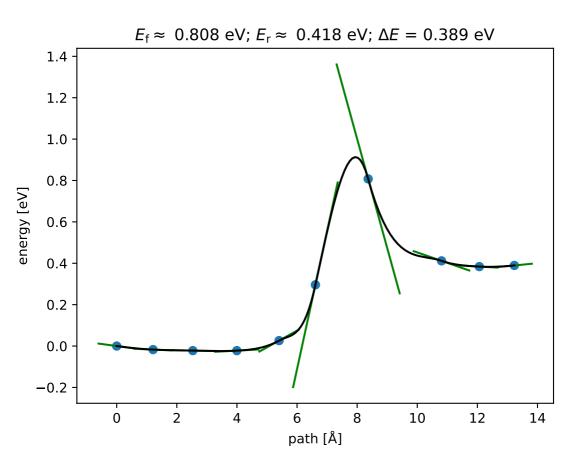


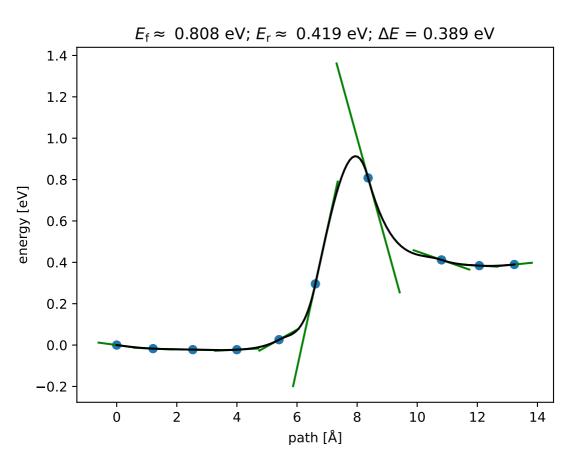


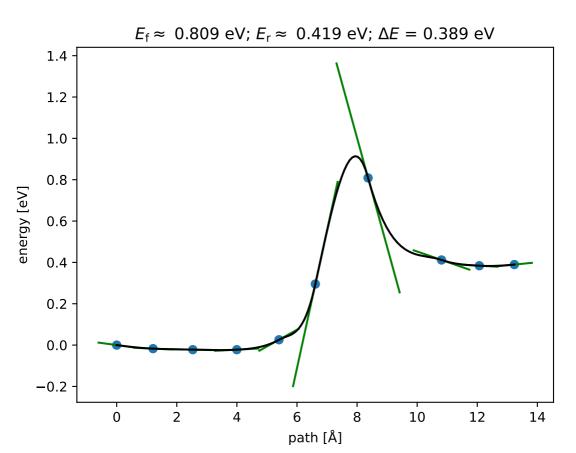


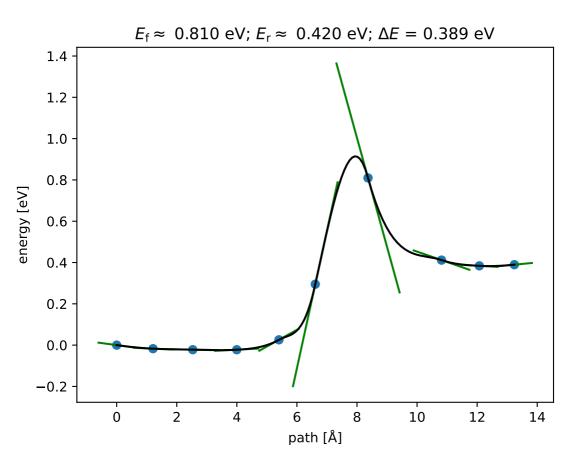


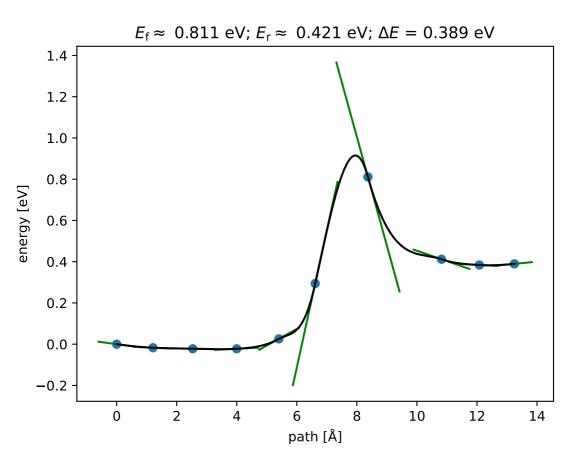


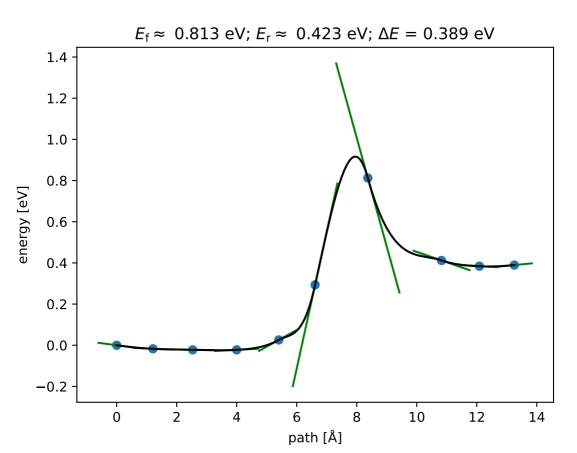


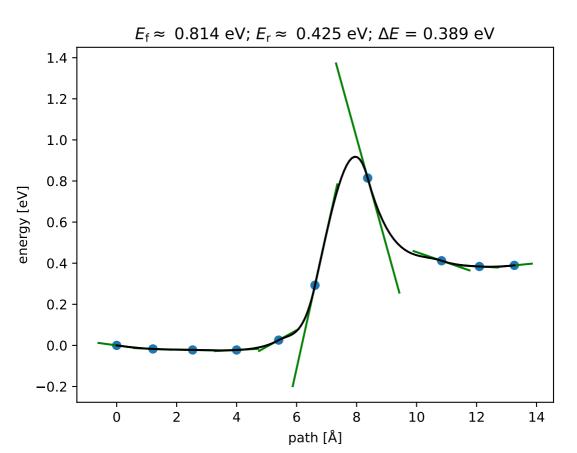


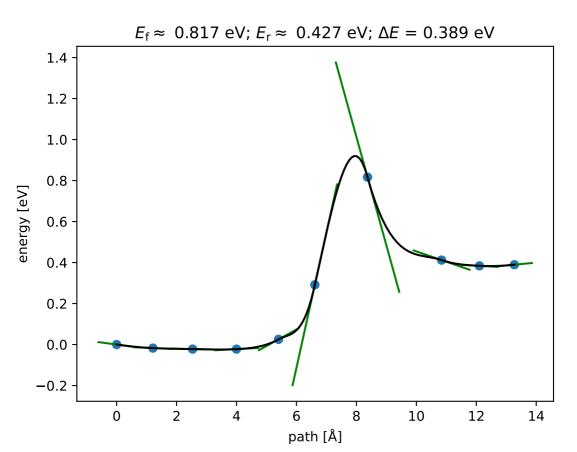


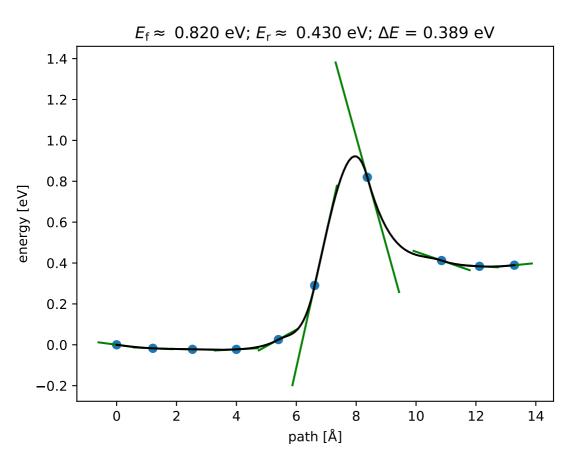


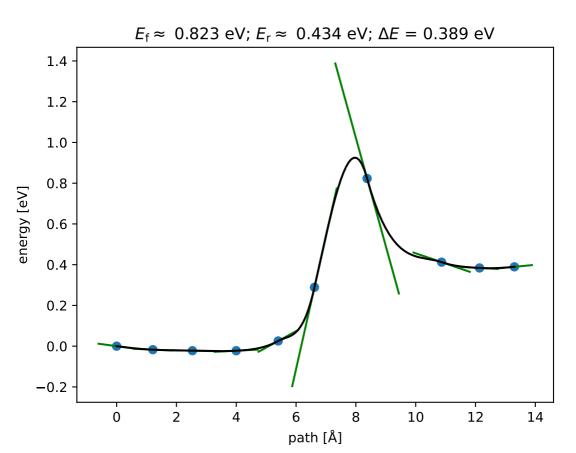


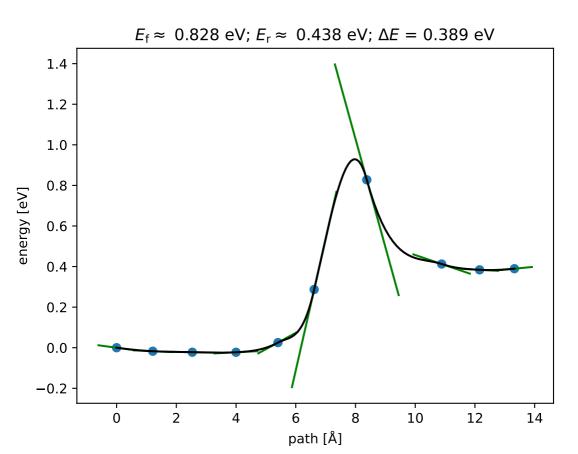


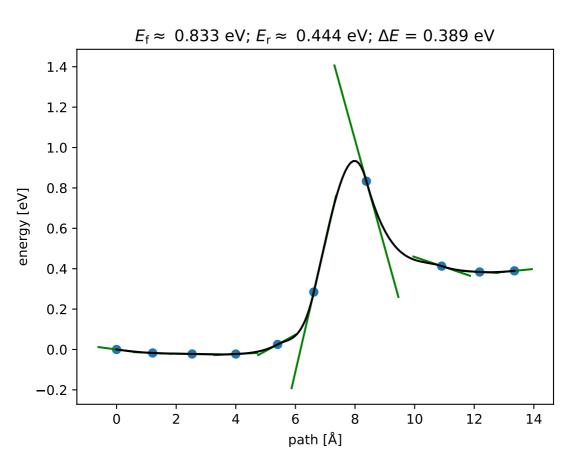


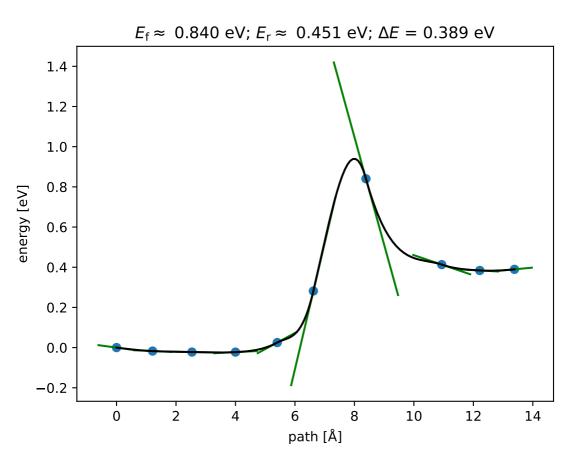


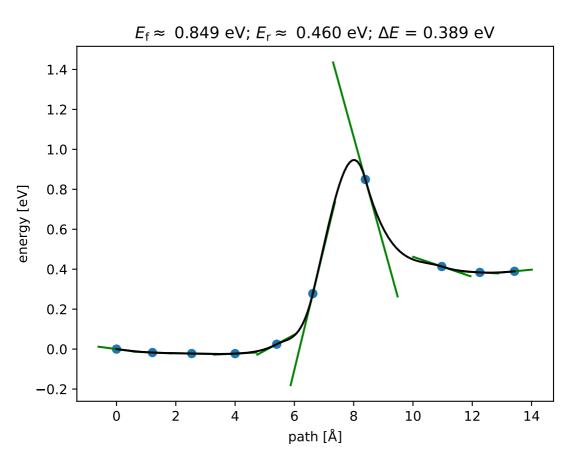


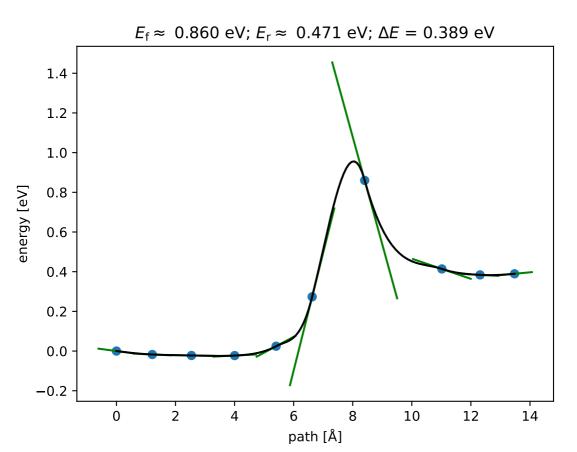


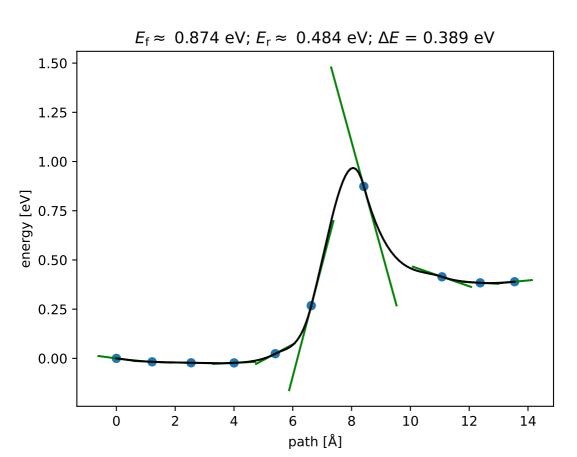


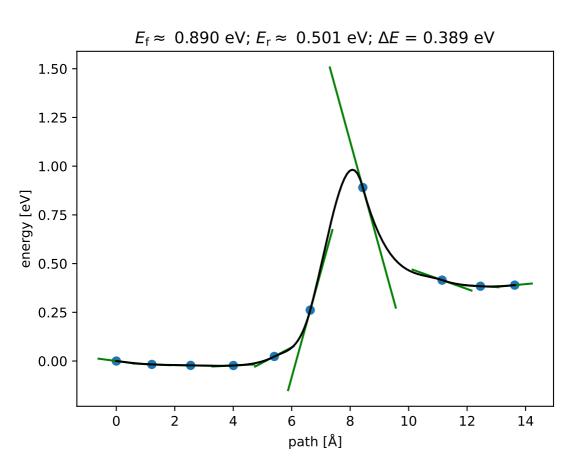


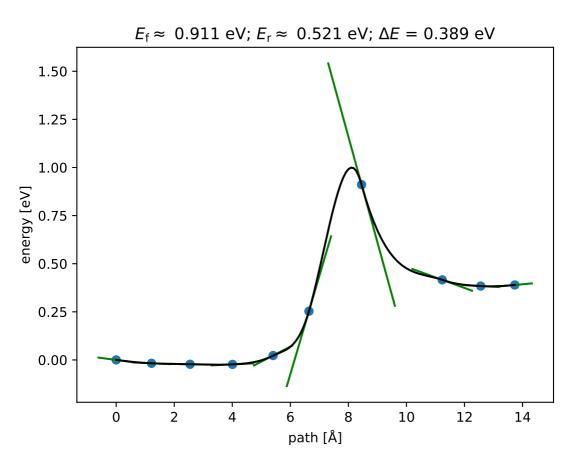


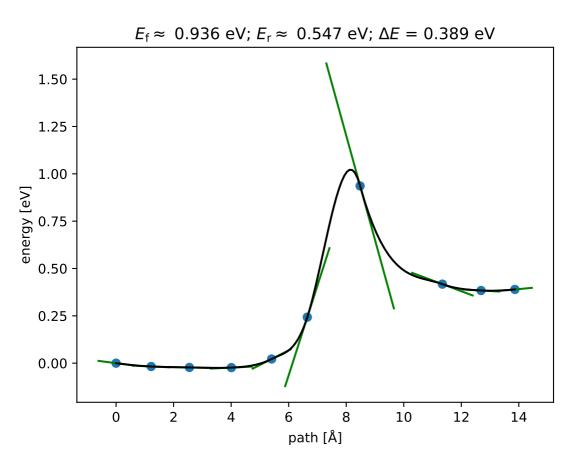


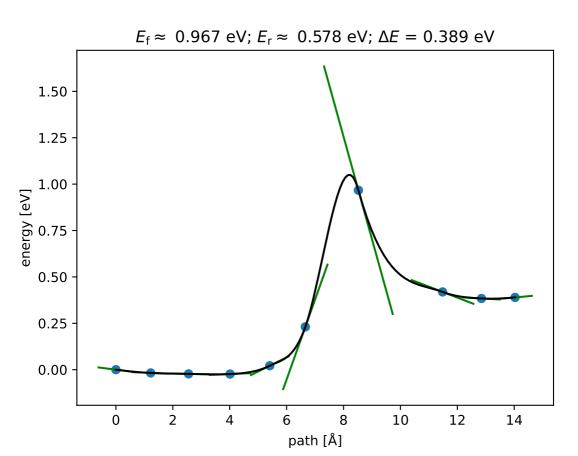


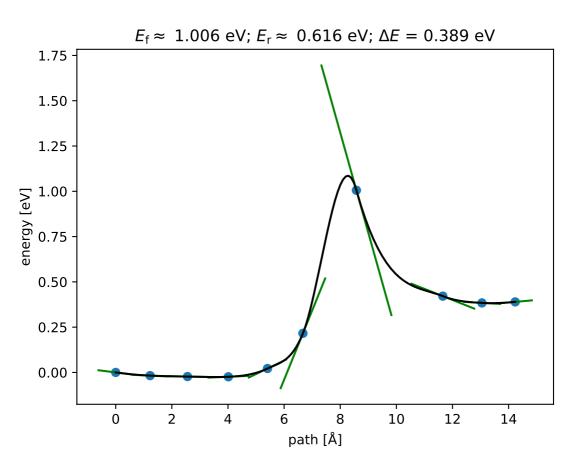


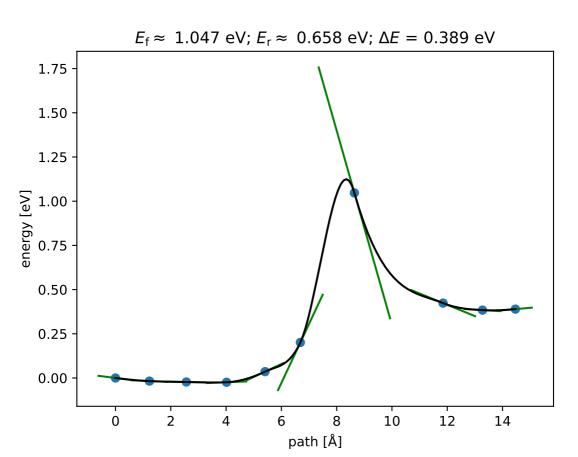


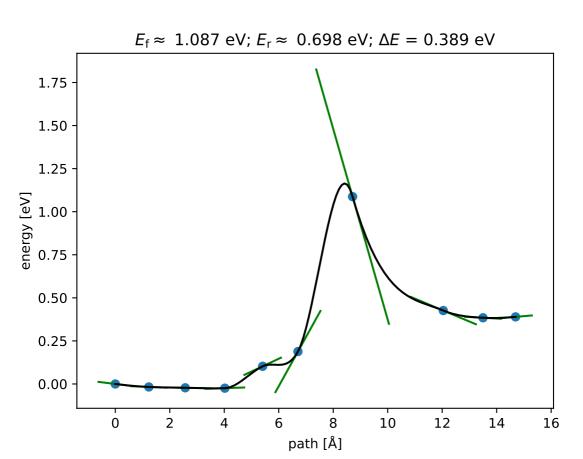


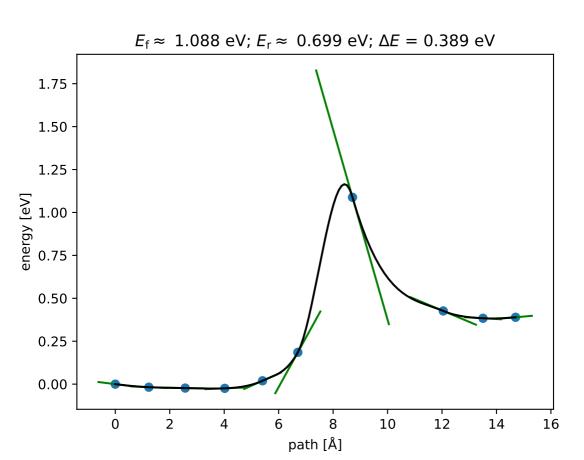


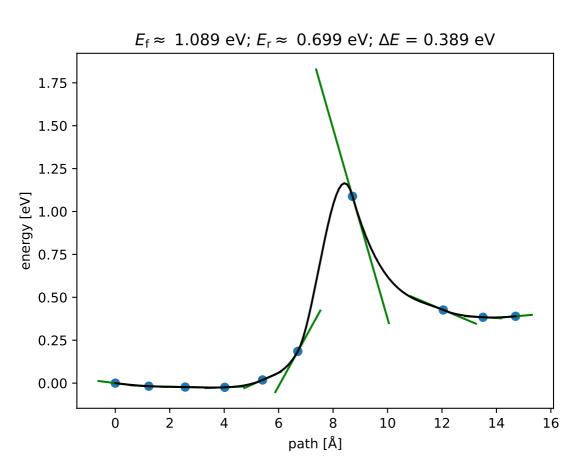


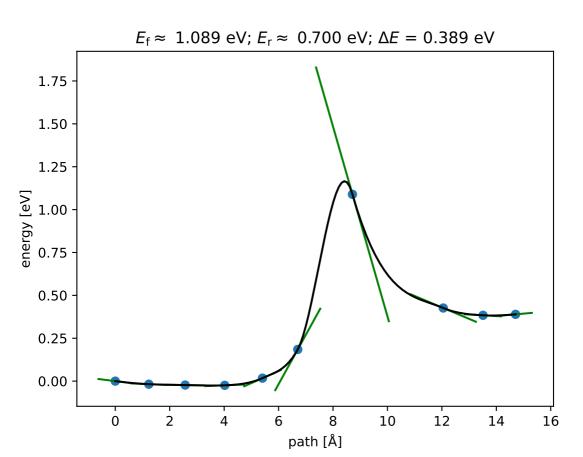


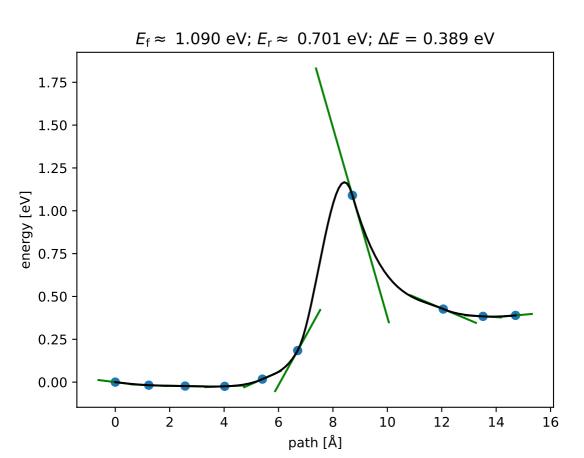


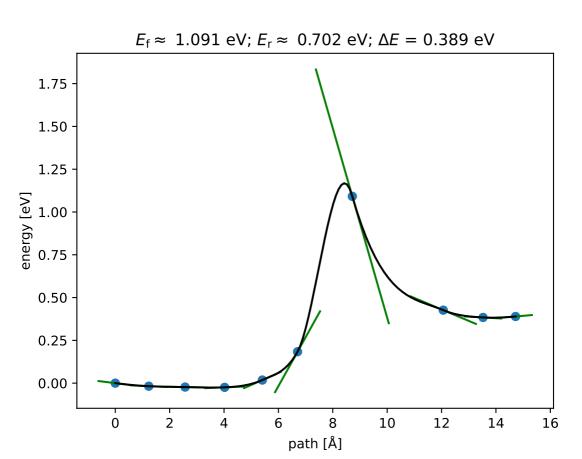


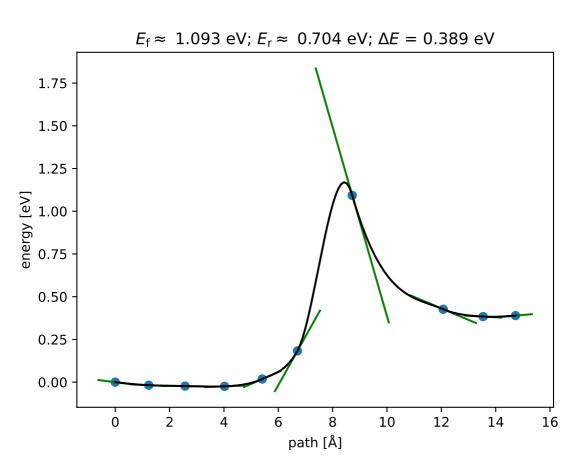


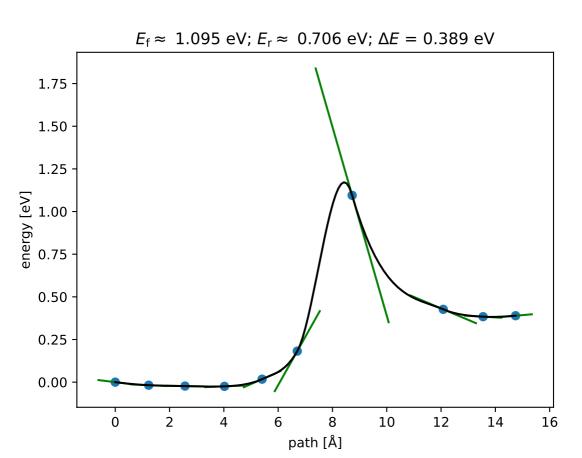


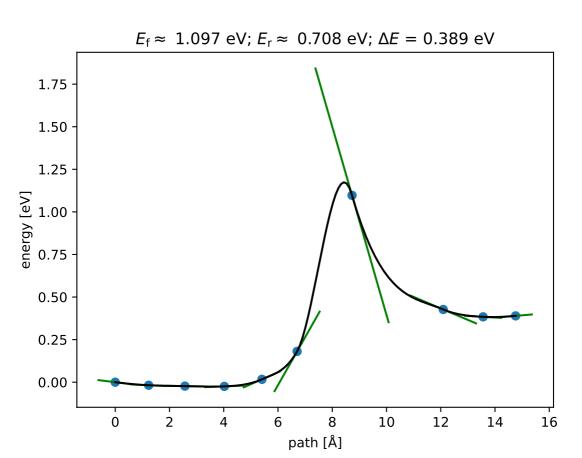


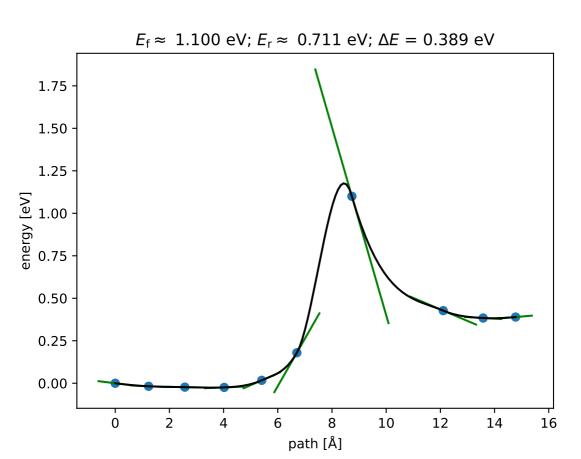


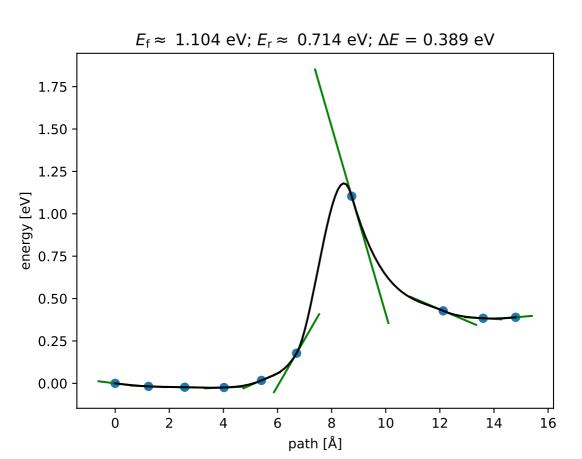


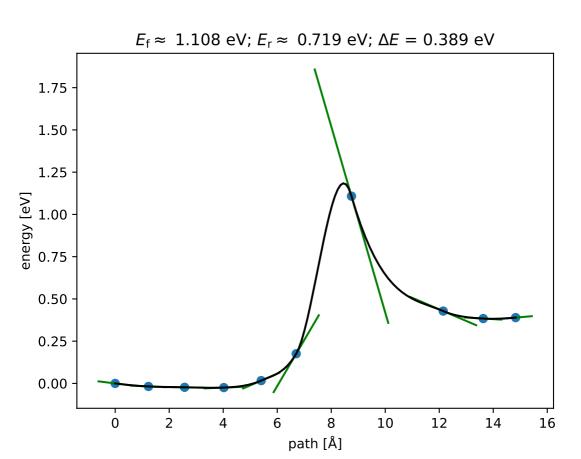


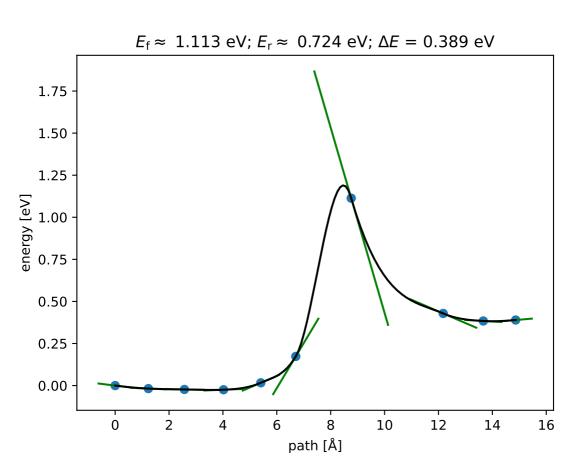


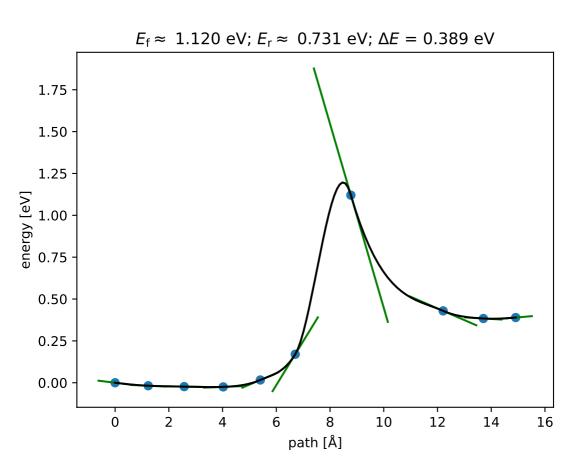


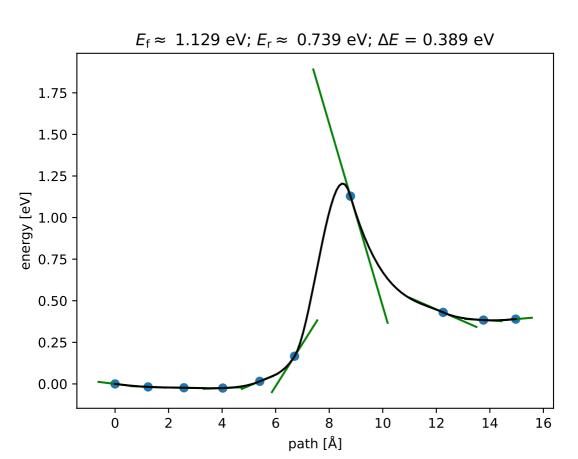


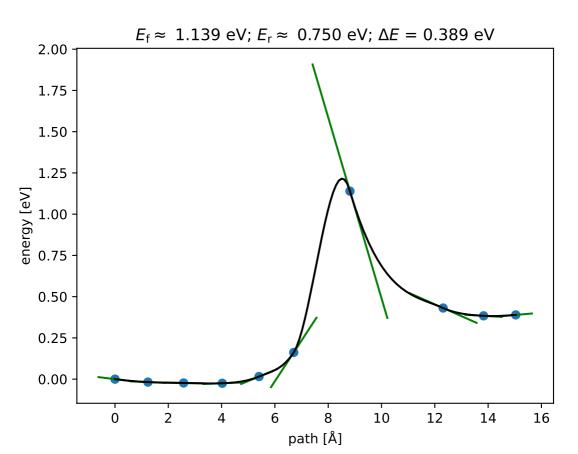


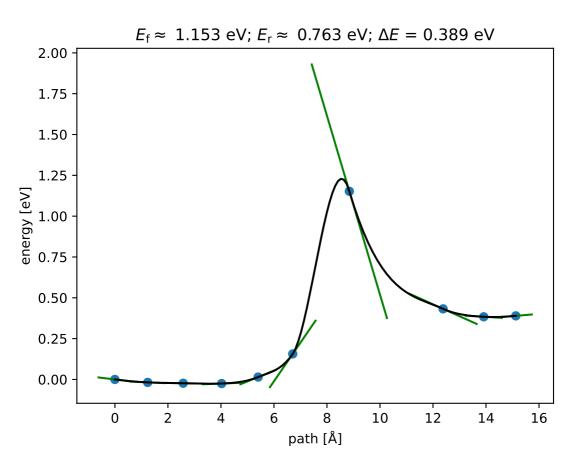


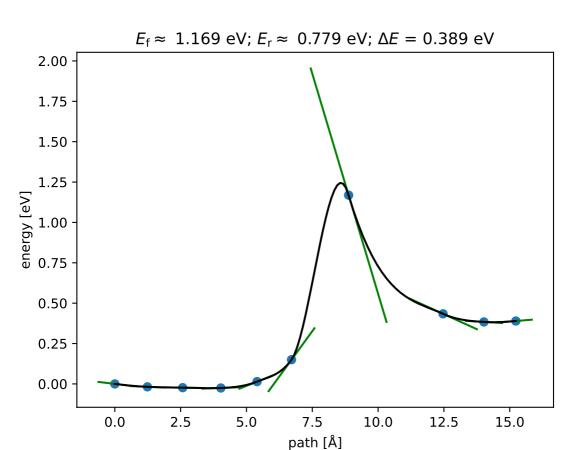


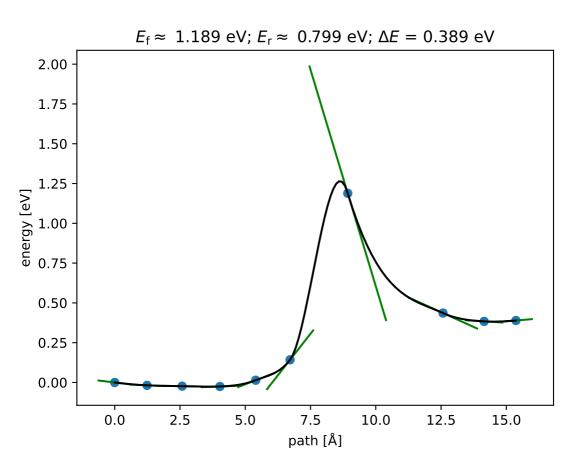


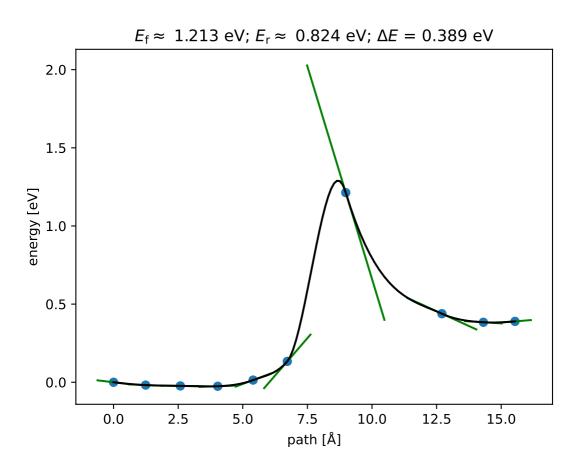


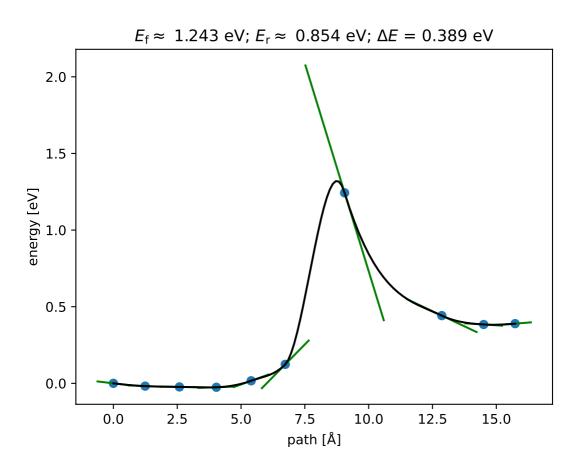


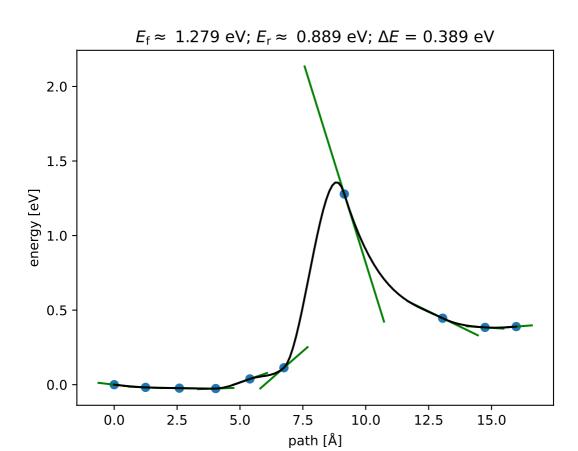


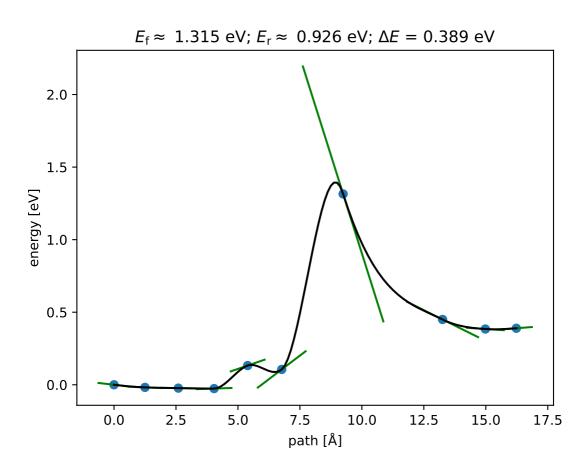


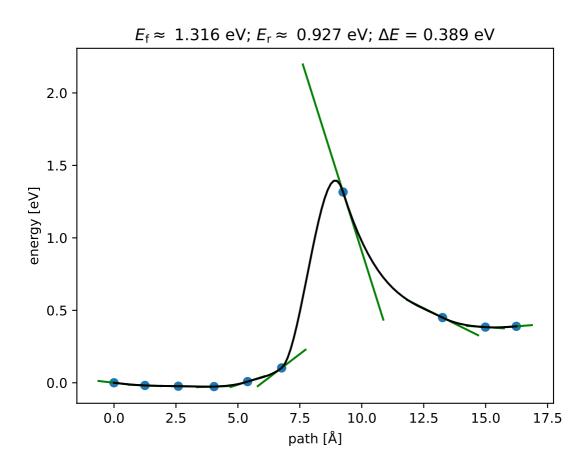


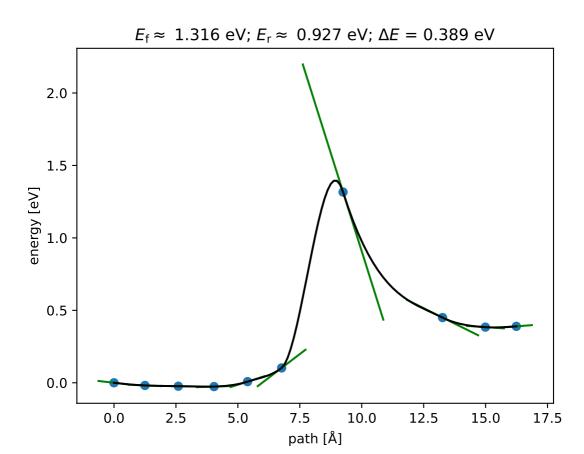


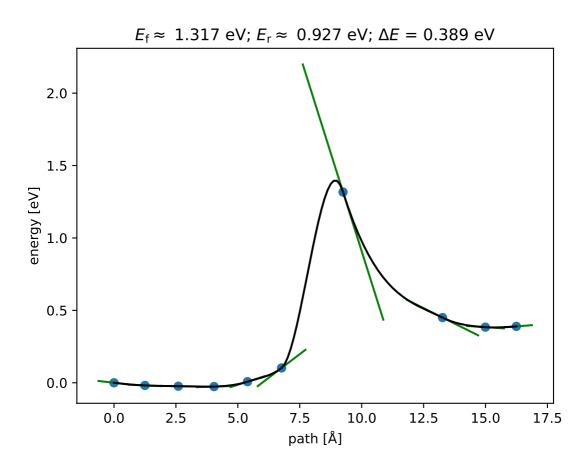


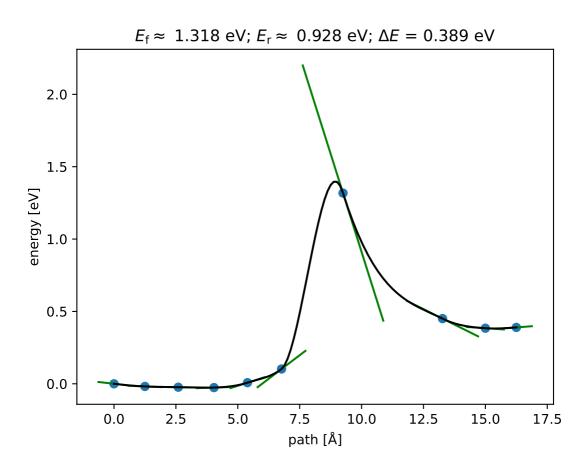


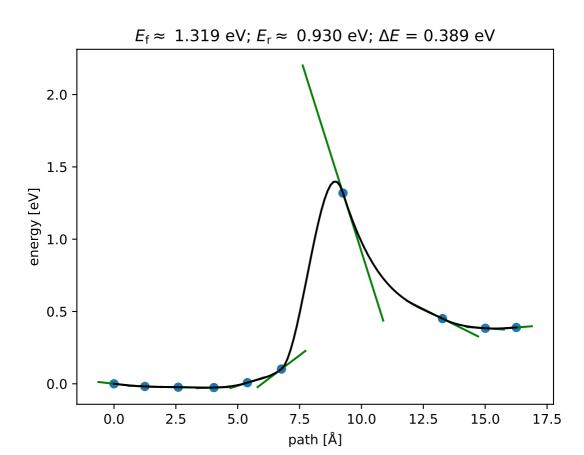


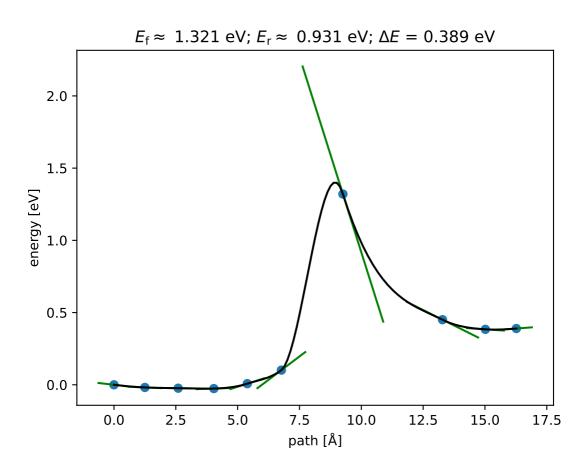


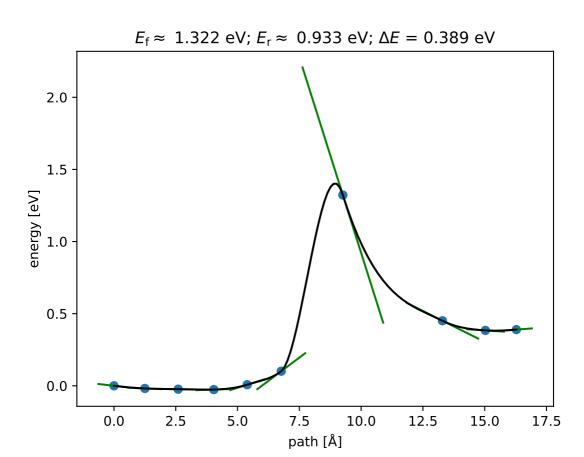


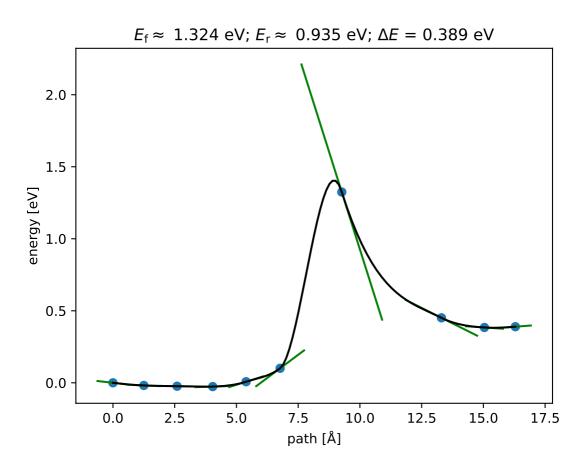


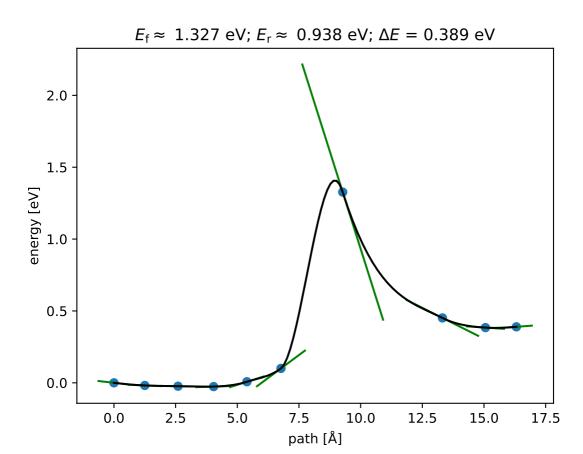


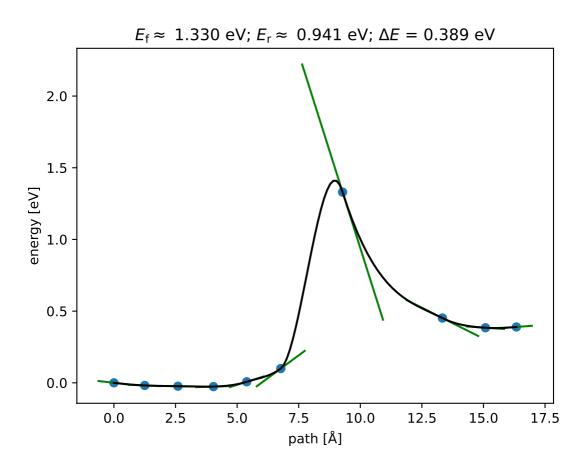


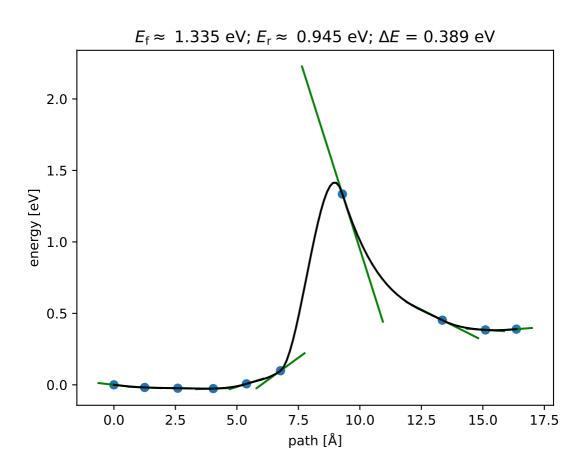


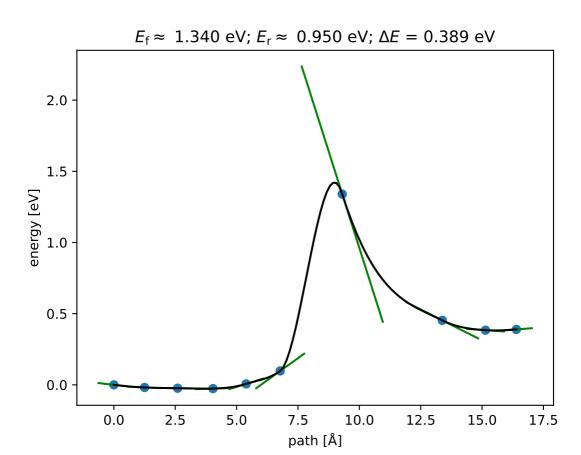


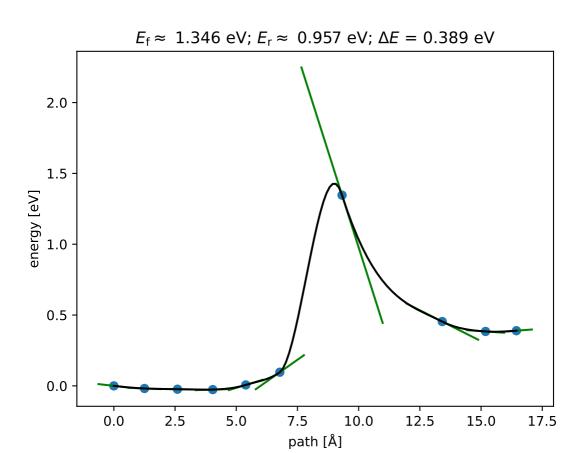


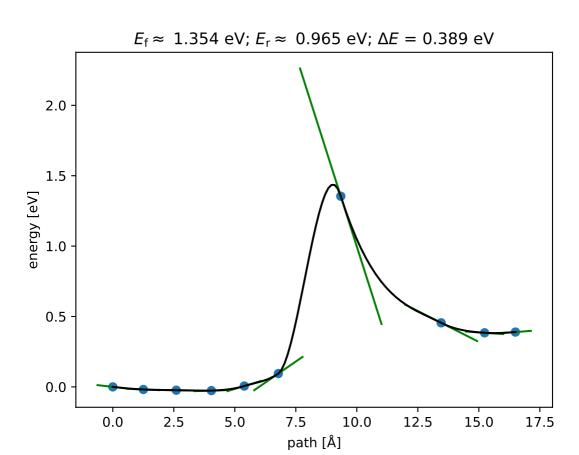


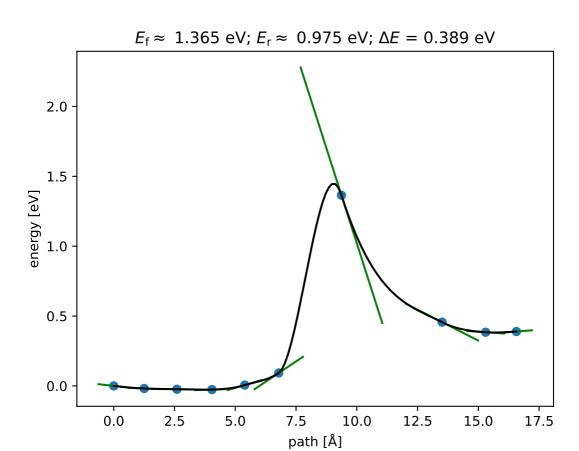


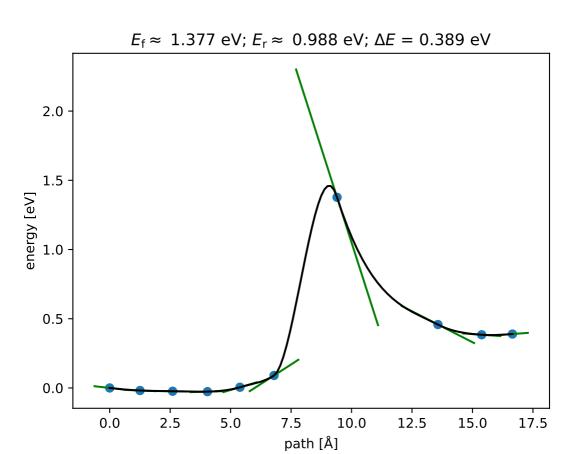


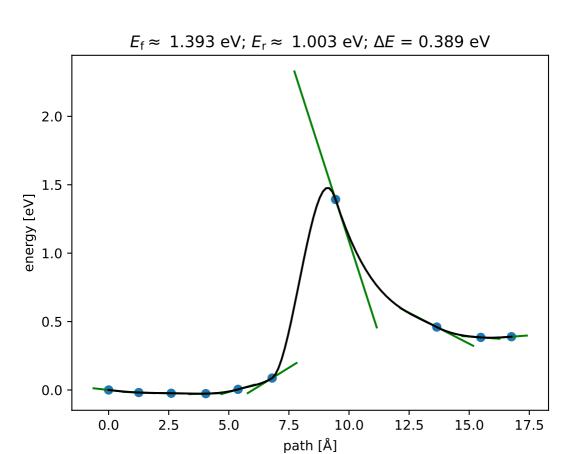




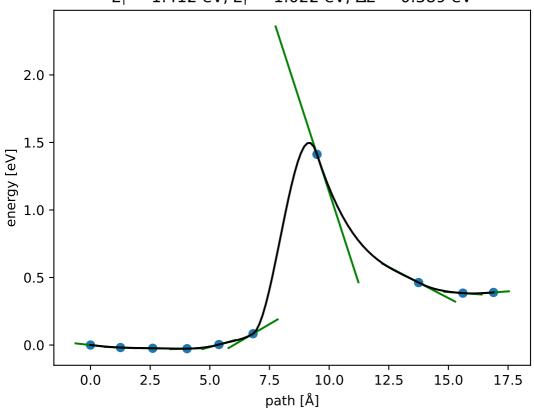


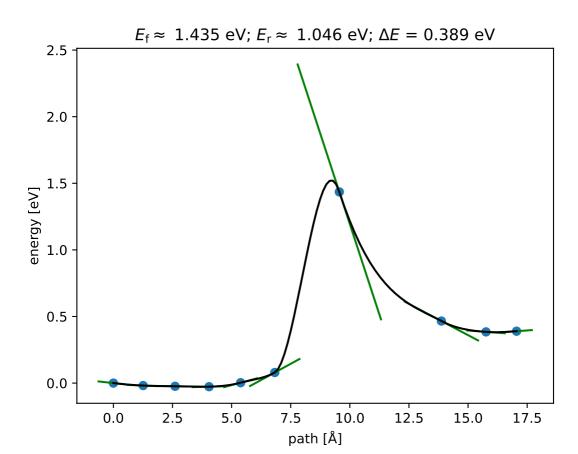


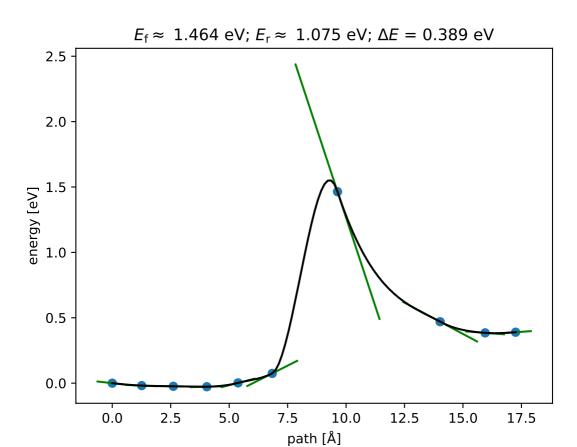


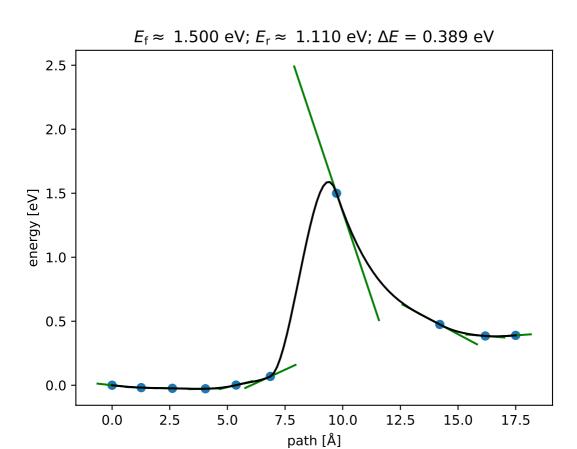


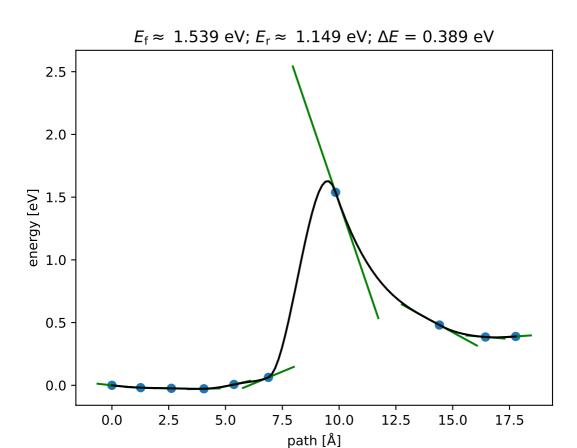
 $E_f \approx 1.412 \text{ eV}; E_r \approx 1.022 \text{ eV}; \Delta E = 0.389 \text{ eV}$ 

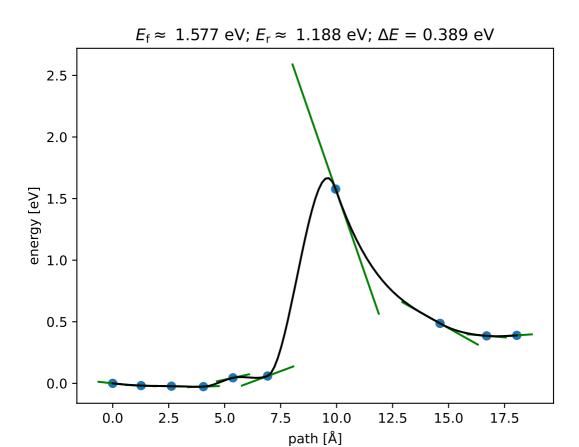


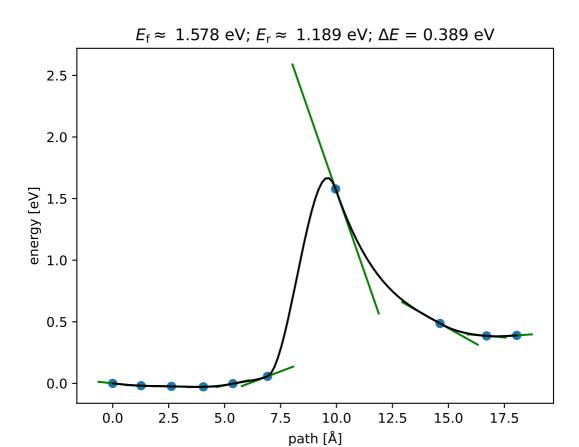


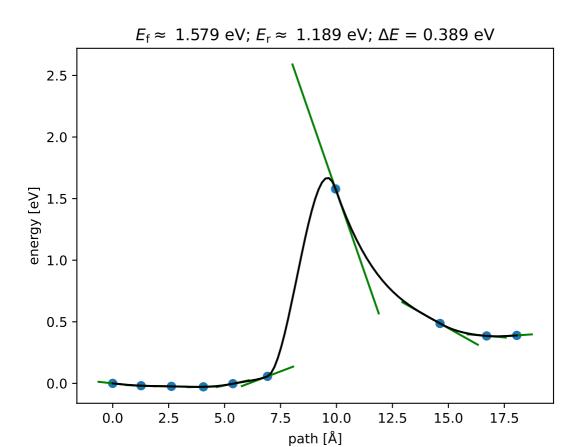


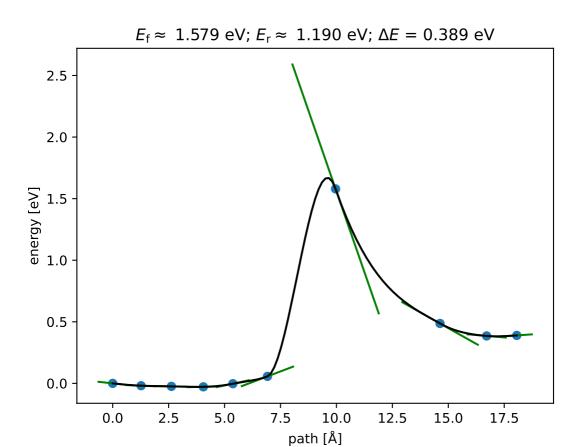


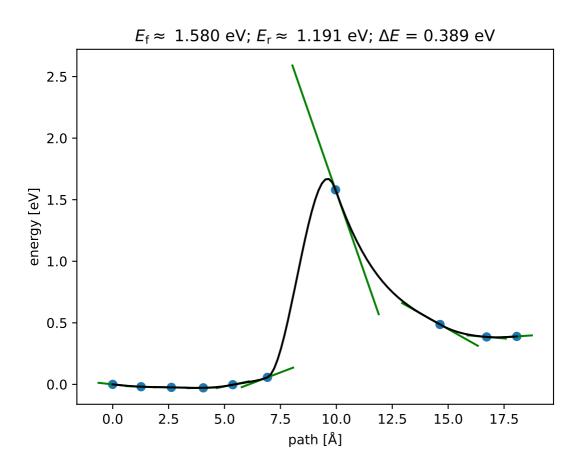


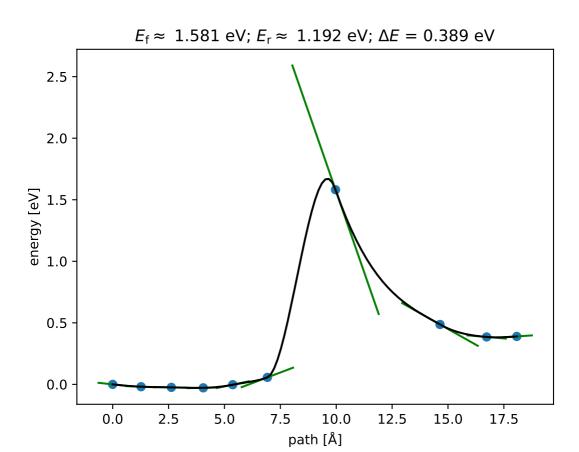


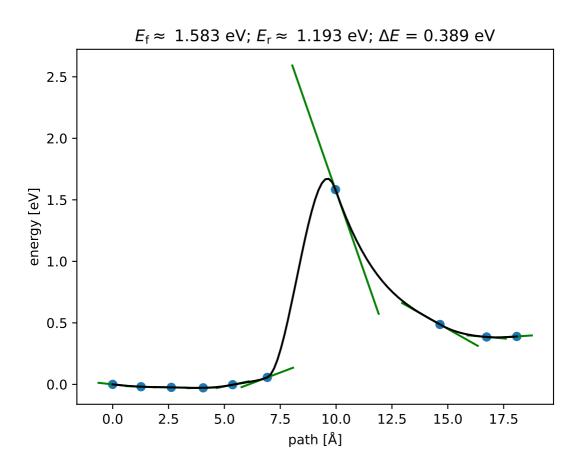


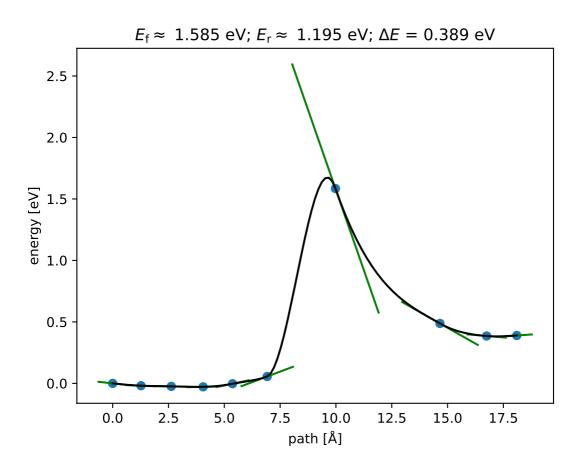


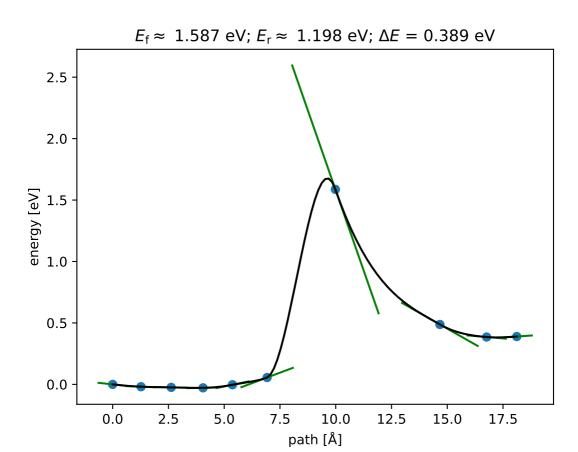


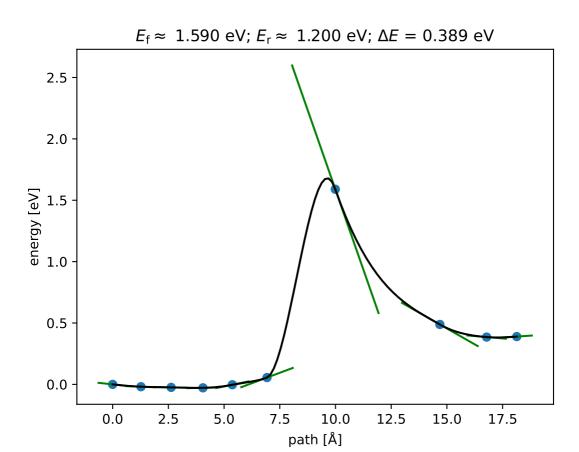


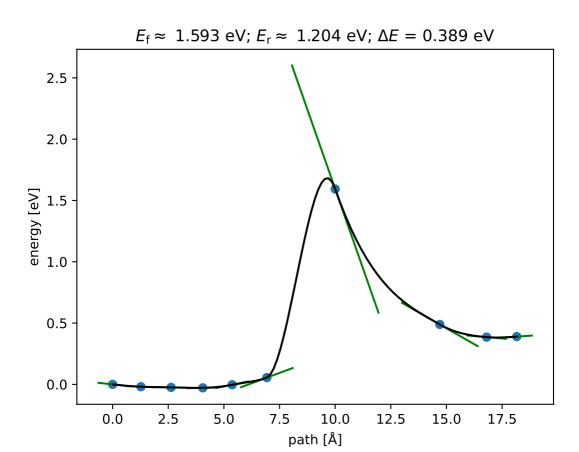


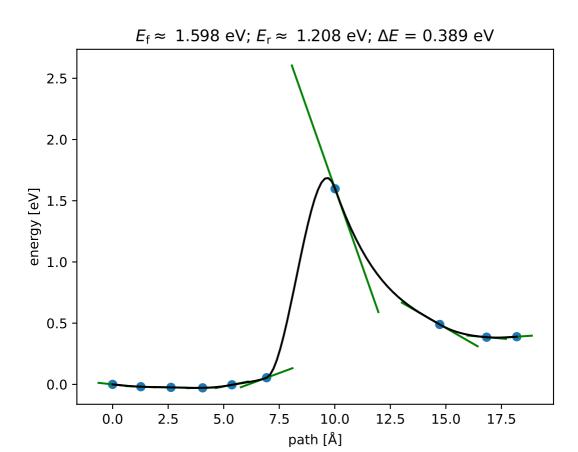


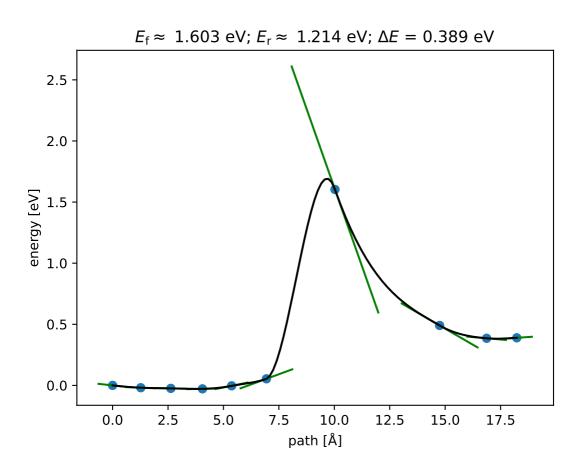


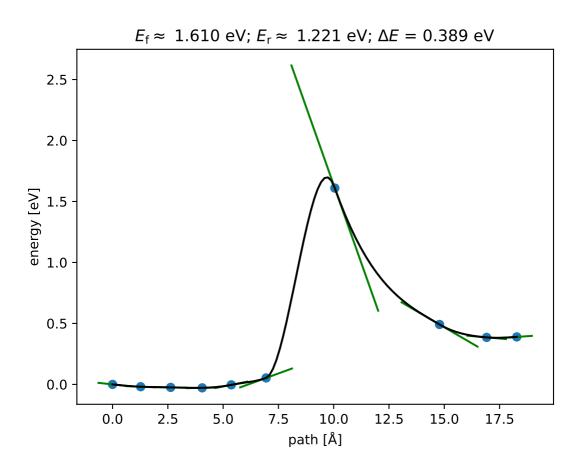


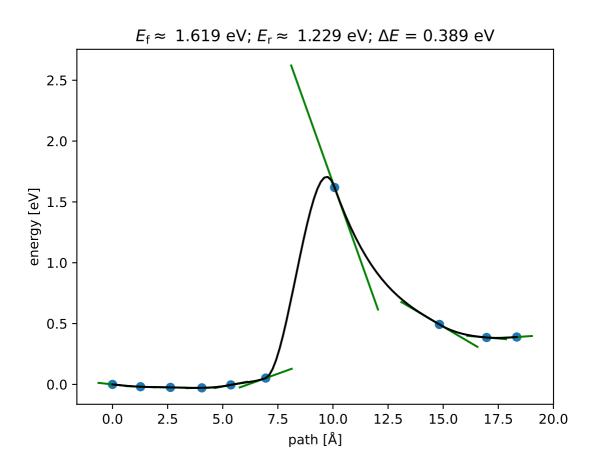


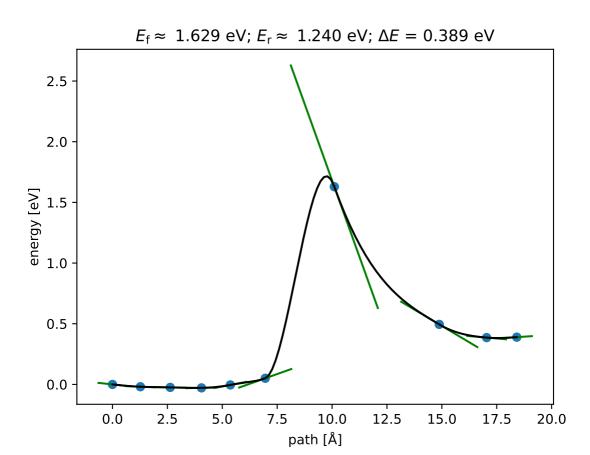


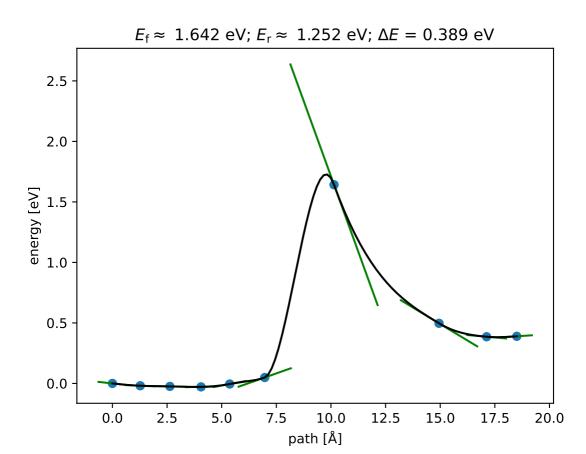


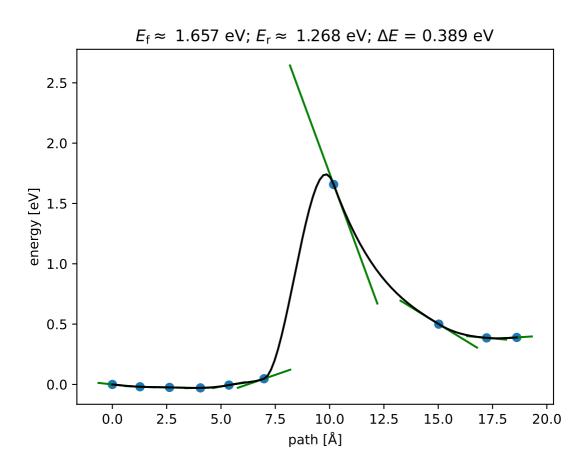


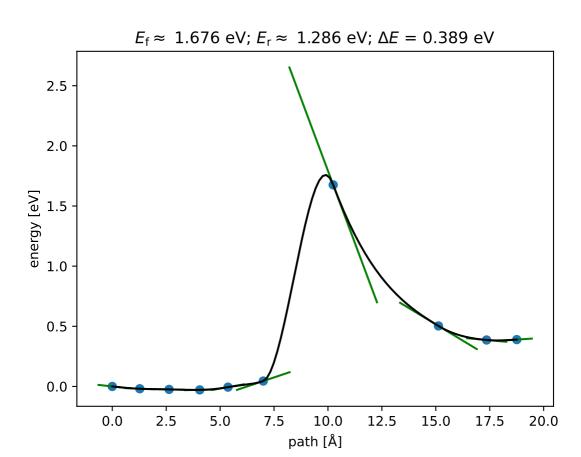


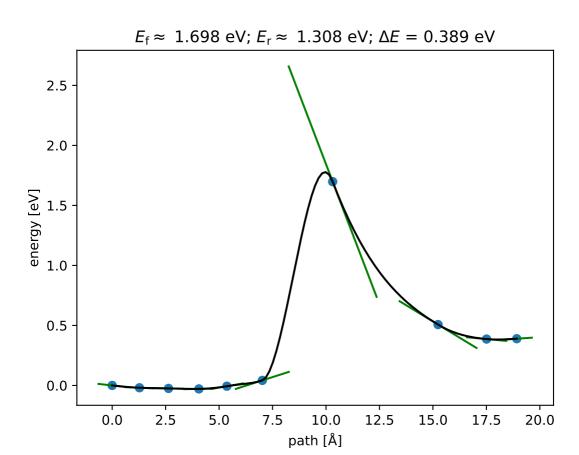


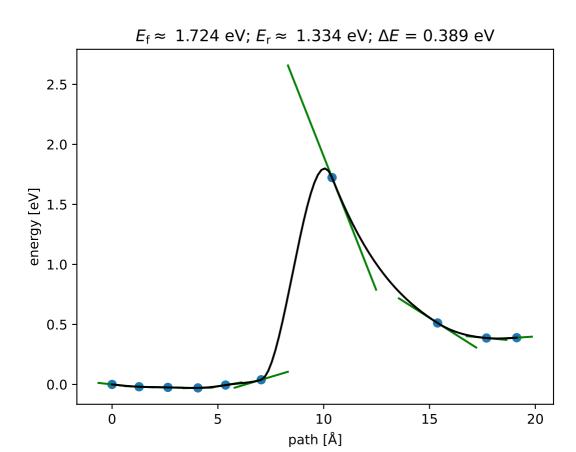


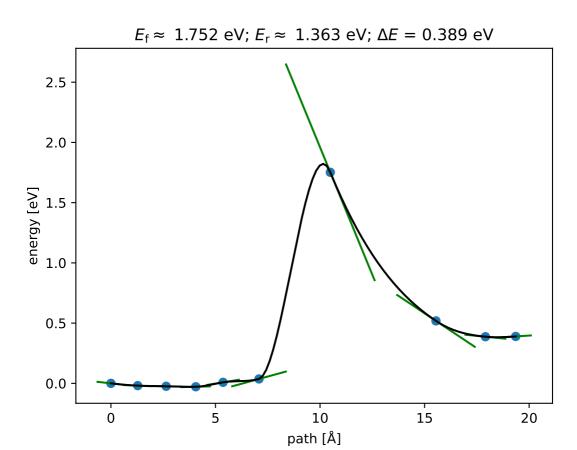


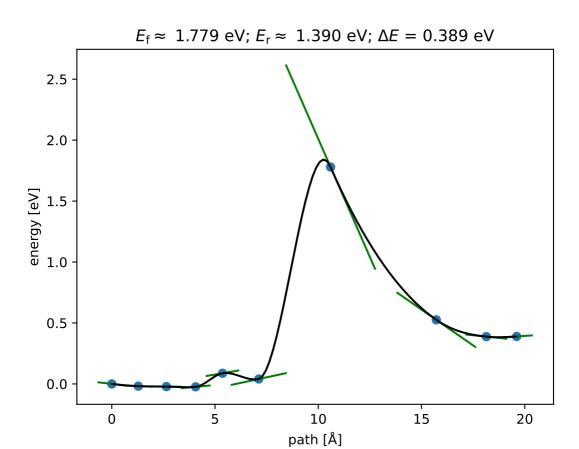


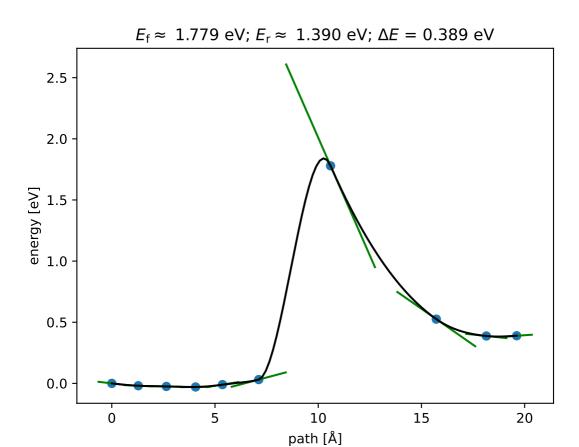


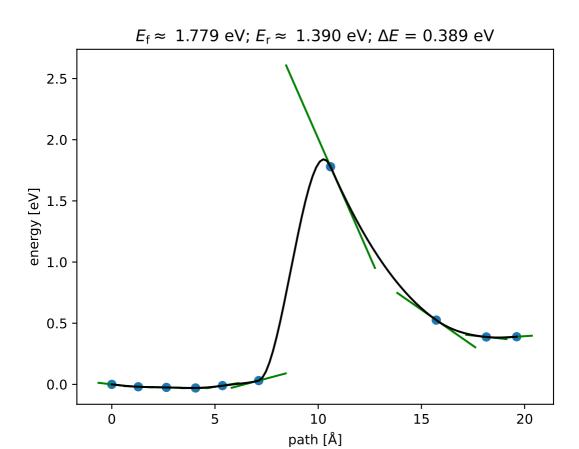


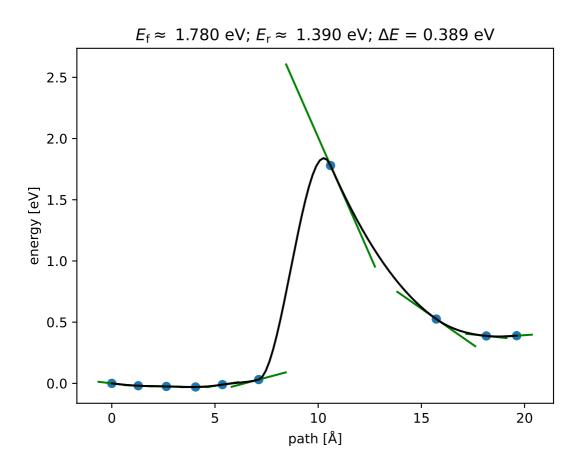


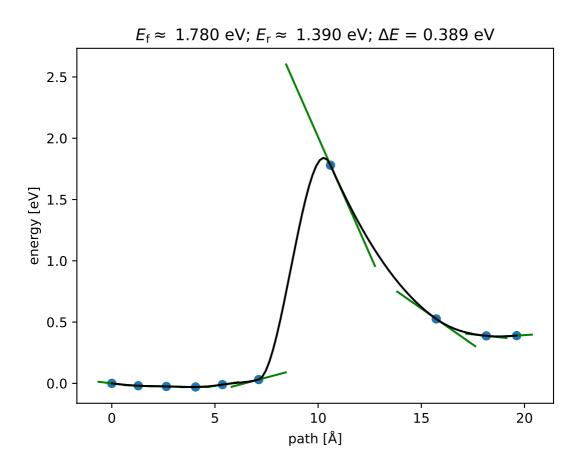


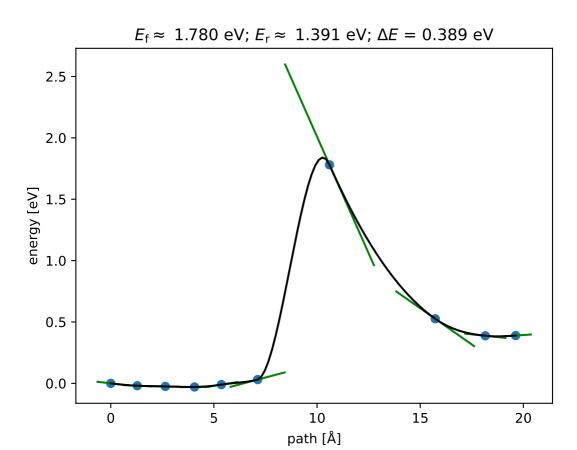


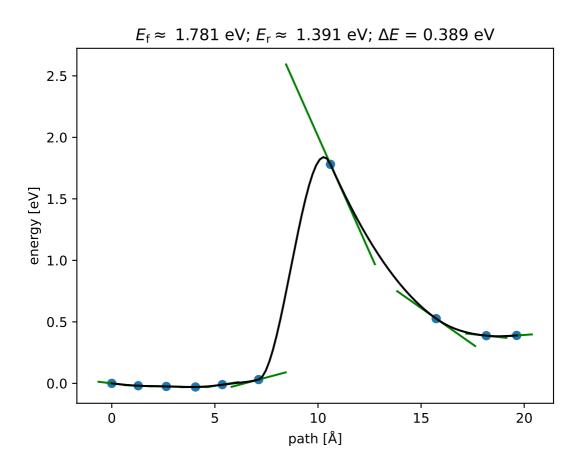


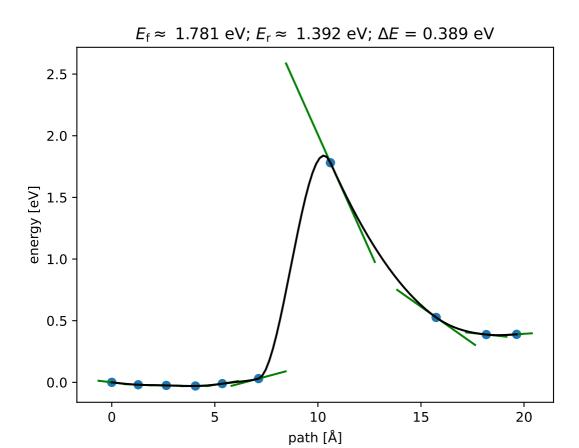


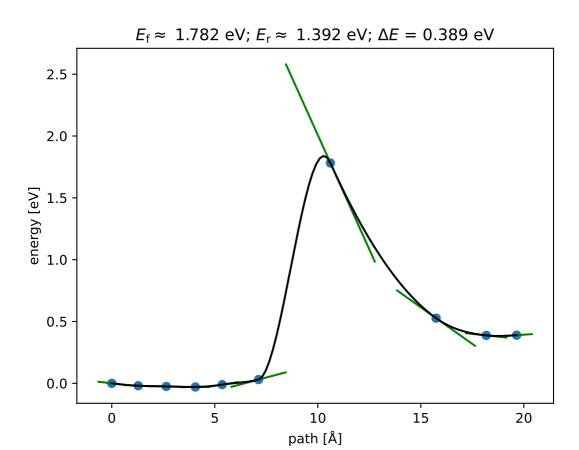


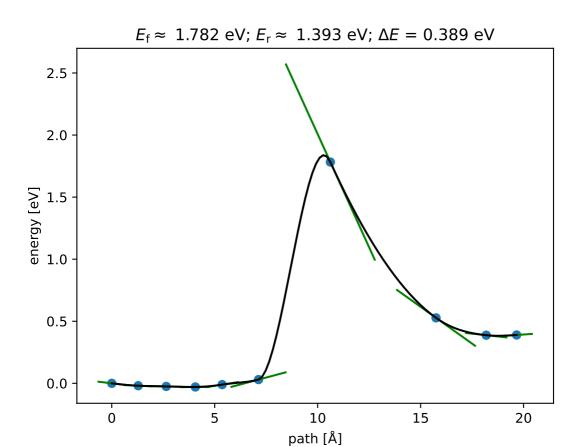


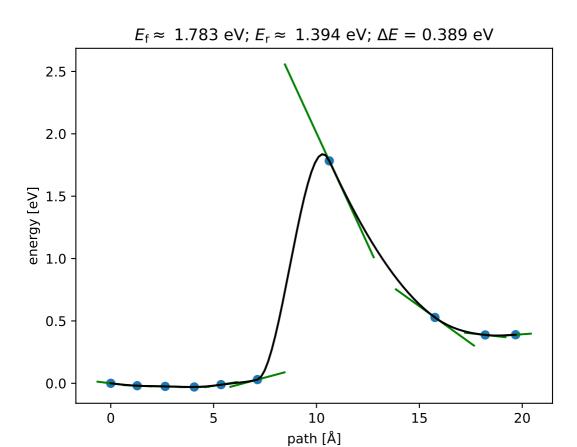


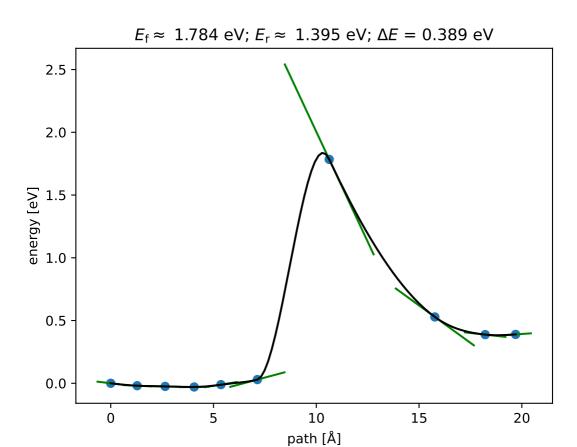


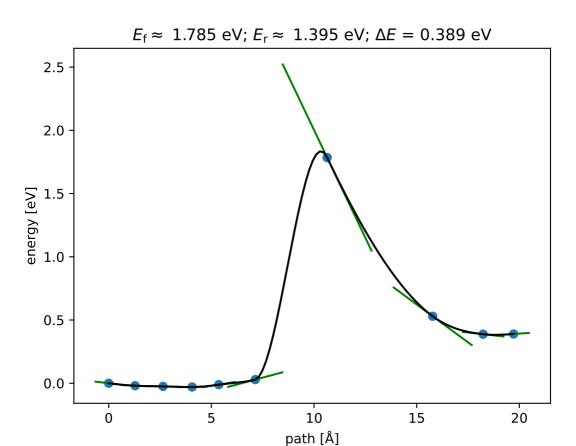


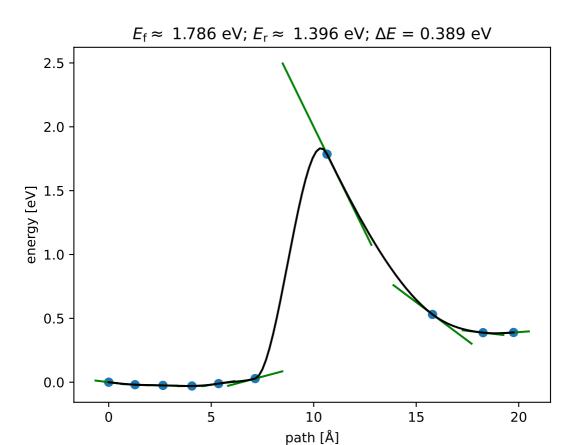


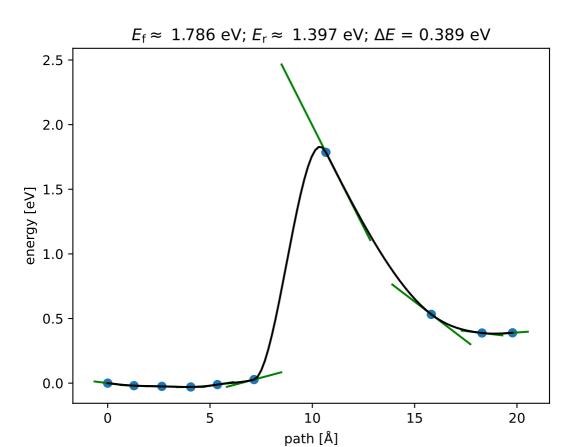


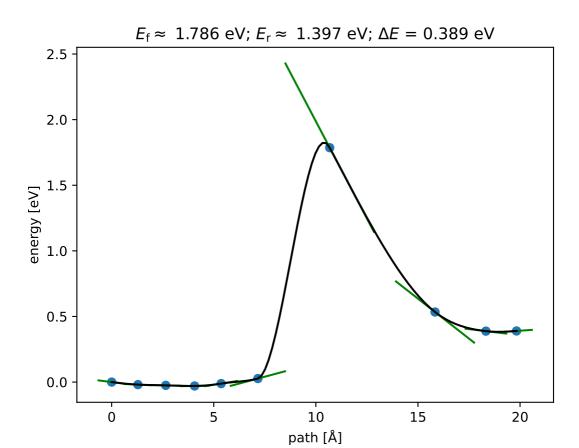


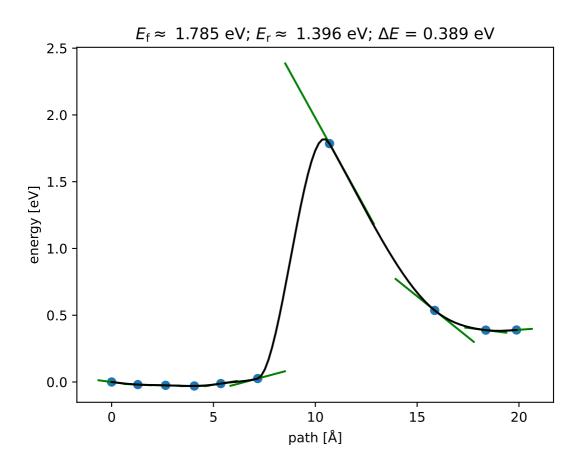












 $E_f \approx 1.783 \text{ eV}; E_r \approx 1.394 \text{ eV}; \Delta E = 0.389 \text{ eV}$ 

10

path [Å]

15

20

2.0

1.5

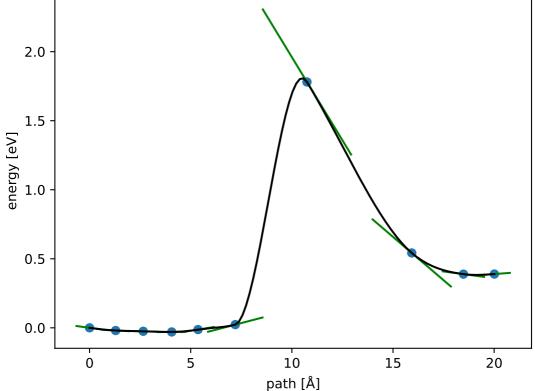
1.0 -

0.5

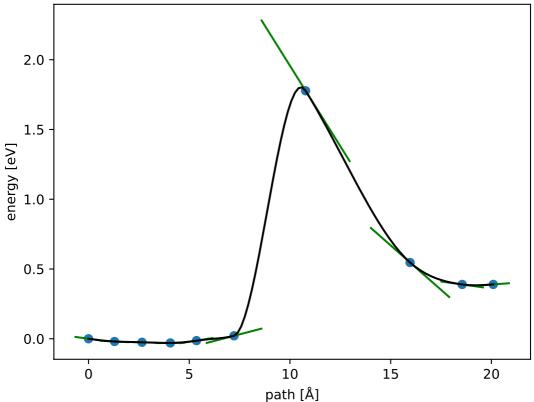
0.0 -

energy [eV]

 $E_{\rm f} \approx 1.780 \; {\rm eV}; \; E_{\rm f} \approx 1.391 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 



 $E_{\rm f} \approx 1.777 \; {\rm eV}; \; E_{\rm r} \approx 1.388 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 



 $E_{\rm f} \approx 1.775 \; {\rm eV}; \; E_{\rm r} \approx 1.386 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 0.5 0.0 15 10 20

 $E_{\rm f} \approx 1.775 \; {\rm eV}; \; E_{\rm r} \approx 1.385 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 1.0 0.5 0.0

10

path [Å]

15

20

5

energy [eV]

 $E_{\rm f} \approx 1.776 \; {\rm eV}; \; E_{\rm r} \approx 1.387 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 0.5 0.0 15 20 10

 $E_{\rm f} \approx 1.779 \; {\rm eV}; \; E_{\rm r} \approx 1.390 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 . 15

20

 $E_{\rm f} \approx 1.778 \; {\rm eV}; \; E_{\rm r} \approx 1.389 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 . 15 20 10

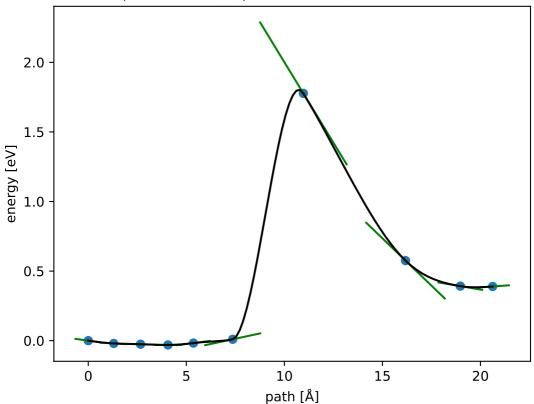
 $E_{\rm f} \approx 1.778 \; {\rm eV}; \; E_{\rm r} \approx 1.388 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 1.0 -0.5 0.0

. 15 20

energy [eV]

 $E_{\rm f} \approx 1.778 \; {\rm eV}; \; E_{\rm r} \approx 1.388 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 . 15 20 10

 $E_{\rm f} \approx 1.777 \; {\rm eV}; E_{\rm r} \approx 1.388 \; {\rm eV}; \Delta E = 0.389 \; {\rm eV}$ 



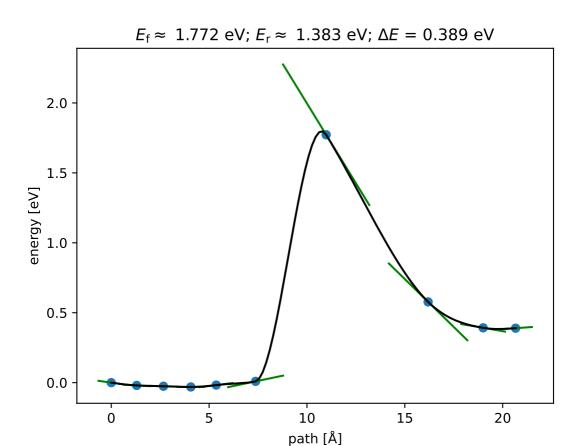
 $E_{\rm f} \approx 1.776 \; {\rm eV}; \; E_{\rm r} \approx 1.387 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 15 20 10

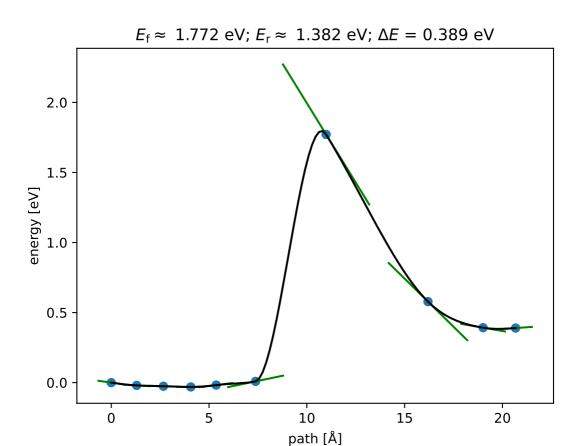
 $E_{\rm f} \approx 1.776 \; {\rm eV}; \; E_{\rm r} \approx 1.386 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 15 20 10

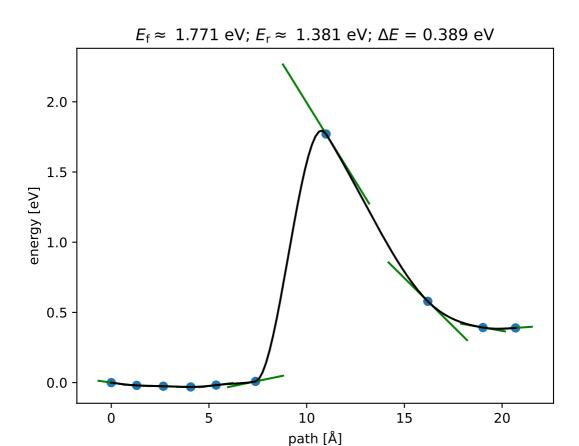
 $E_{\rm f} \approx 1.775 \; {\rm eV}; \; E_{\rm r} \approx 1.386 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 . 15 10 20

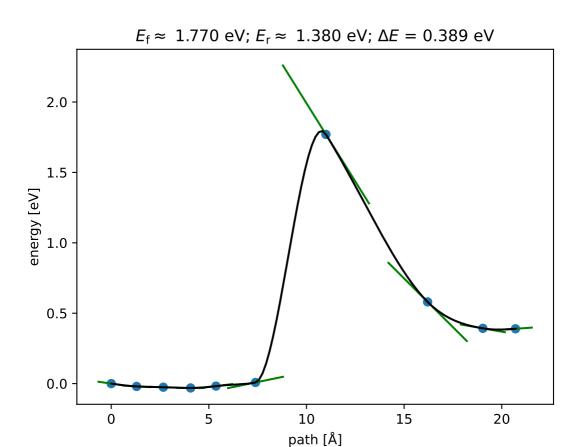
 $E_{\rm f} \approx 1.774 \; {\rm eV}; \; E_{\rm r} \approx 1.385 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 15 10 20

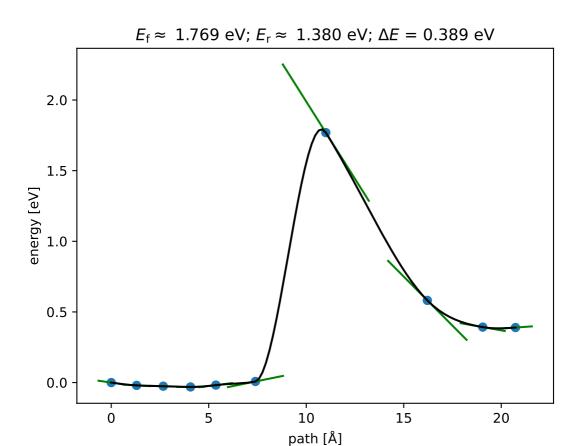
 $E_{\rm f} \approx 1.773 \; {\rm eV}; \; E_{\rm r} \approx 1.384 \; {\rm eV}; \; \Delta E = 0.389 \; {\rm eV}$ 2.0 1.5 energy [eV] 1.0 -0.5 0.0 15 10 20











 $E_{\rm f} \approx 1.769 \, {\rm eV}; E_{\rm r} \approx 1.380 \, {\rm eV}; \Delta E = 0.389 \, {\rm eV}$ 2.0 1.5 energy [eV] 1.0 0.5 0.0 15 10 20

