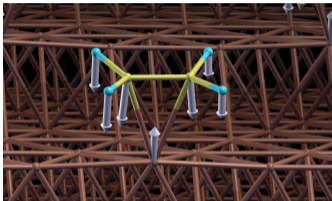
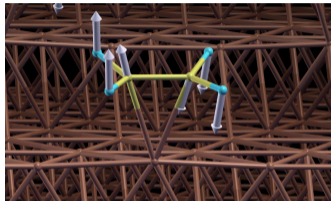


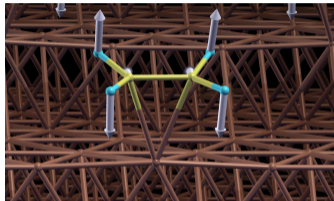
molecule–surface
vertical vibration



frustrated rotation
perpendicular to C=C axis



frustrated rotation
along C=C axis



perfect (111):	22 meV
step–edge:	35 meV
kink:	33 meV

32 meV
42 meV
37 meV

54 meV
63 meV
55 meV