C2H3O2-

$C_2H_3O_2^-$ $T = 2(4) + 3(1) + 2(6) + 1 =$ (C, H, O; 1 = the charge.)

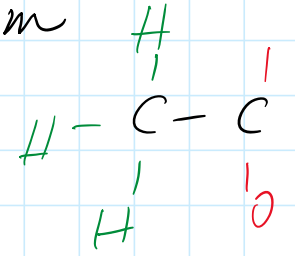
$= 8 + 3 + 12 + 1 = 24\ e^-$

C goes in the middle (most bonds)

~~C~~, ~~C~~, H, H, H, O, O.

C – C $T = 24 - 2 = 22^-$

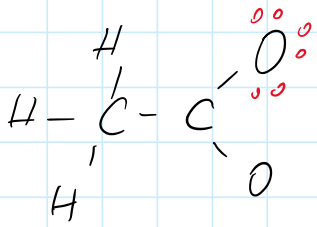
The formula indicates the H_3-s stay together & so do the Oxygens, so we'll mk an exception from the algorithm



$T = 22 - 2(5)$ no more atoms left.

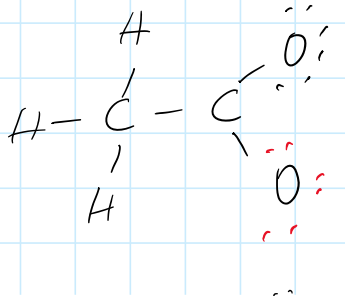
$T = 22 - 10 = 12$

O needs 8 e⁻



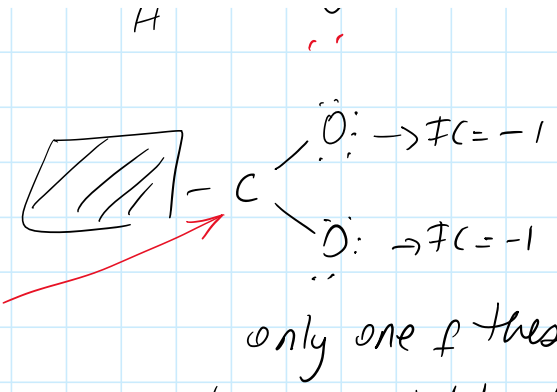
$T = 12 - 6 = 6.$

O ~



$T = 6 - 6 = 0.$ no more e⁻s.

:Ö: arrangements hv an FC = -1



no set

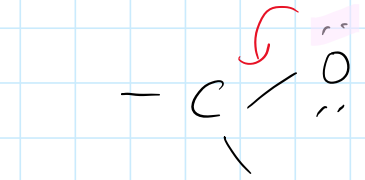
$-\ddot{O}:$ arrangements hv an FC = −1 & are not favorable.

however $=\ddot{O}$ are.

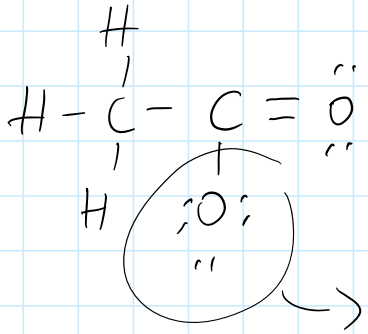
FC = 6 − 6 = ∅

only one of these could be acceptable (the molecule is charged by (−1))

this can be fixed by sharing one more bond w/ the C.



$\Rightarrow$ $-C=\ddot{O}$ works for both C & O



$-\ddot{O}:$

→ the only FC to be −1 ⇒ the charge of the molecule