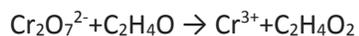


Answer on Question #53520 – Chemistry – Organic Chemistry

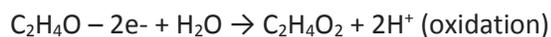
Question:

How to balance this equation? $\text{Cr}_2\text{O}_7^{2-} + \text{C}_2\text{H}_4\text{O} \rightarrow \text{Cr}^{3+} + \text{C}_2\text{H}_4\text{O}_2$

Answer:



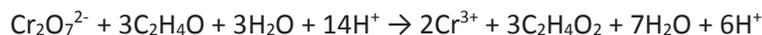
First of all, an electronic balance should be calculated:



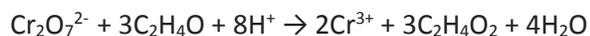
Thus, the ratio between $\text{Cr}_2\text{O}_7^{2-}$ and $\text{C}_2\text{H}_4\text{O}$ must be of 1:3 that to balance the equation.



All substances from the half-reactions should be included in the equation:



The next step involves a subtraction of water and H^+ from the left and right part, respectively:



As result the equation has been balanced.