KIRCHHOFF’S LAW

The Kirchhoff’s point or junction rule states that the sum of all current coming into a point must be equal to the sum of all current leaving the point.

The Kirchhoff’s loop or circuit rule states that as one traces out a closed circuit, the algebraic sum of the potential changes encountered is zero. In this sum, a potential rise (moving from a lower pd to a higher pd) is positive and a potential drop (moving from a higher pd to a lower one) is negative. Current always flows from high potential to a low potential through a resistor. As one traces through a resistor in the direction of the current, the potential charge is negative because it is a potential drop.

The positive terminal of a pure cell is always the high potential terminal independent of the direction of the current through the emf source.