ABSTRACT

Presence of sulfur and its compounds in coal and biogas leads to the detrimental effects on power generation plants and human health. These energy sources are subjected to chemical desulphurization for purification, prior to their usage in various applications. This research project addresses the chemical method of desulphurization of coal and biogas that is being carried out using different absorbents such as $FeCl_3$. Oxidation of iron sulfide/iron pyrite to elemental sulfur ensures the completion of desulphurization process that makes it more advantageous to meet our future energy demands. Kinetic studies revealed the interactive relationship between different variables i.e time, temperature concentration of $FeCl_3$, and the rate of desulphurization process.