



Title: Sulfur Dioxide (SO<sub>2</sub>) Accumulation in Soil and Plant's Leaves around an Oil Refinery: A Case Study from Saudi Arabia

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Abstract: The accumulative levels of SO<sub>2</sub> in soil and plant's leaves around an oil refinery were monitored. Four different sites around the refinery area were chosen; west, south east, north east and the northern side. The refinery southern side was not accessible. In addition to the soil samples, leaves samples of the dominant plants species *Myoporum pictum* were randomly collected from all sites. Highly significant levels of sulfate were found in soil and plant leaves samples at all sites compared to the control. The highest level of sulfate in soil ( $9,000 \pm 1200 \mu\text{g g}^{-1}$ ) and plant's leaves ( $65,774 \pm 320 \mu\text{g g}^{-1}$ ) were found in the southern east side. This high content of sulfate indicates high levels of air contamination with SO<sub>2</sub> around the refinery which negatively effects the environment and public health at this populated area.