

## Field Trip to ExxonMobil, 19<sup>th</sup> November 2016



Despite the cold weather conditions and the early departure, 8 members were so excited to visit a sour gas treatment plant for the first time, that they became unstoppable.

Upon arrival and after a detailed safety instruction, the technical details of the sour gas treatment were explained to us theoretically. Quite surprisingly the gas itself only moves through a small part of the facility. Only the CO<sub>2</sub> and H<sub>2</sub>S are being washed out by the so called "Sulfinol lauge", which is a mixture of 3 different bases. The majority of the plant is used to extract the sulfur out of the hydrogen sulfide. Interestingly the sulfur produced there is one of the purest in the world with a sulfur content of 99,99%. This way it perfectly suits the needs of the chemical industry but is also used in fertilizing products. After the introduction we finally got the chance to enter the facility under ExxonMobil supervision. During the walk we first followed the gas stream from the beginning till the end and afterwards the H<sub>2</sub>S stream. This H<sub>2</sub>S is first boiled out of the Sulfinol and is then transported to the 3 in line Claus plants, where the H<sub>2</sub>S is basically burned using a catalytic converter. In each system the temperature is lowered from above 1100°C to about 400°C in the last step. The heat produced is not wasted but used to generate steam, which is needed to power multiple pumps and can also be used for boiling the Sulfinol.