Economic factors affecting the feasibility of CO_2 capture with membranes

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For the reduction of CO2 emissions one promising approach is the use of membrane based separation and capture of emitted CO2. This approach has a number of advantages including the relatively compact size of equipment and the ease of installation at existing power plants or process sites. However, the feasibility membrane based CO2 capture projects will depend heavily on certain economic factors. This study considers the sensitivity of total annualised costs for membrane based CO2 capture projects with respect to factors including equipment costs and energy prices. Hence, a comparison of different costing options reveals a range of different annualised costs for the same project including both optimistic and pessimistic view points. The feasibility of such projects can then be judged based on these results.

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