

### Selection of thermally separable draw solutes for a forward osmosis desalination process

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Thermally separable draw solute candidates for a forward osmosis (FO) desalination process which are selected by screening method based on the property database. The selection of the draw solute largely influences the energy consumption and the productivity of a FO desalination plant. The selected draw solute candidates have relatively high osmotic pressure, solubility, low boiling point (below 100°C) and toxicity. To simulate a FO desalination process, the essential properties such as osmotic pressure, solubility and etc. are gathered from OLI stream analyzer and Aspen Properties®. Subsequently, the economic feasibilities of the candidates have been analyzed by carrying out process simulation under various steam prices and target capacities.