Improving Air Quality Through Carbon Sequestration in Phoenix, Arizona

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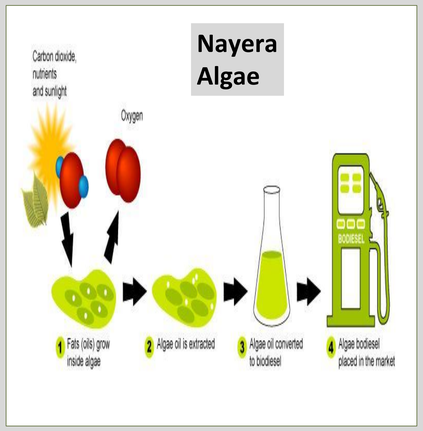
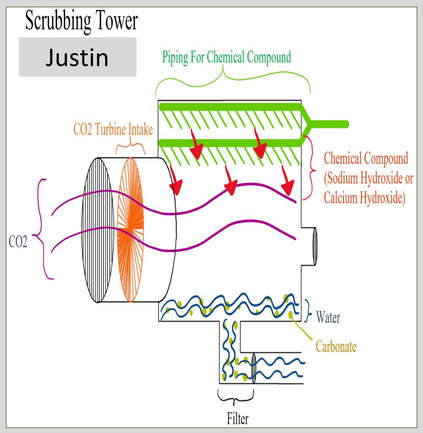
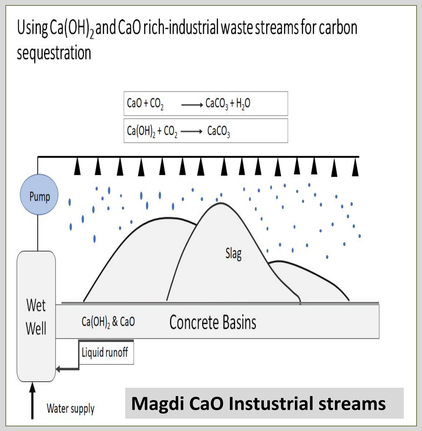
Background

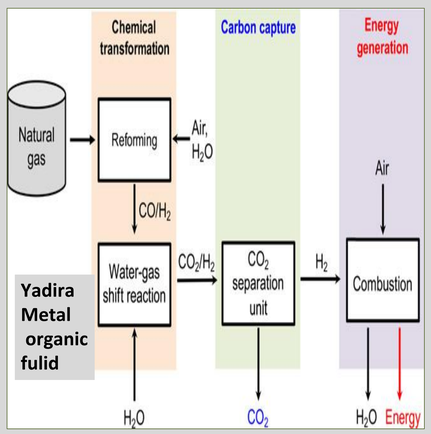
- Carbon sequestration is the process of taking Carbon Dioxide from the atmosphere and storing it through different processes
- Phoenix, Arizona is the 8th most polluted city in the United States
- Sequestering some of the high amounts of Carbon Dioxide present in Phoenix's atmosphere will improve the will improve air quality
- The importance of Carbon sequestration comes from the fact that high amounts of Carbon Dioxide present in Phoenix's atmosphere leads to health problems, e.x., lung cancer, asthma attacks, and susceptibility to infections.

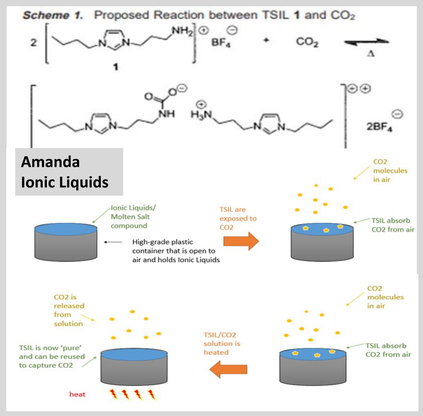
Individual Design Solutions







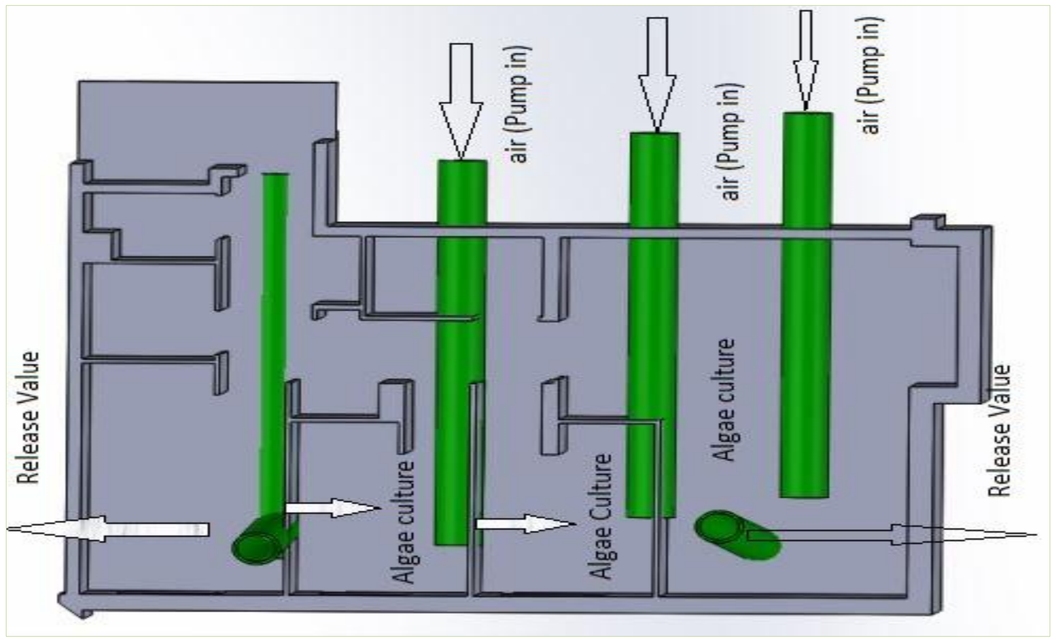




Solutions Evaluation

Weight	Criteria	Scrubbing Tower	Ionic Liquid	Algae	Concrete	CaO Industrial Stream	Metal Organic Framework
9	Efficiency	3	8	7	6	7	6
8	Ease of Use	5	6	4	3	2	3
10	Eco Friendly	7	4	10	8	9	5
7	Safety	9	7	9	4	9	7
6	Cost	4	8	5	8	9	5
	Total	224/400	257/400	288/400	234/400	286/400	207/400

Algae project design



Conclustion

As a team, we set up the criterias as follows: environmentally friendly, efficiency, easy for people to use, safety and cost. Since we choose a crowded city as Phoenix to be our area, safety is always an considerable choice. Although Algae is not easy to use, but is is safe and eco-friendly.