

Carbon Capture and Storage (CCS) plays a key role in negative emission technologies

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Mohammad S. et al. wrote an article entitled “Global carbon intensity of crude oil production” (1). A variety of negative emission technologies have been proposed. An algae bioreactor has been developed that transforms CO<sub>2</sub> emissions from fossil fuel combustion into valuable biofuels and phytonutrients (2). Carbon Capture and Storage (CCS) will play a key role in reducing CO<sub>2</sub> emissions (3). The CCS chain consists of three parts; capturing the carbon dioxide, transporting the carbon dioxide, and securely storing the carbon dioxide emissions, underground in depleted oil and gas fields or deep saline aquifer formations (3). Although the limited potential for eliminating CO<sub>2</sub> emissions (4), the world’s first “negative emissions” plant has begun operation—turning carbon dioxide into stone (5). CCS technology can be also applied to coal power (6).

#### References:

1. Mohammad S. et al., Global carbon intensity of crude oil production, *Science* 361 (6405), 851–853
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3. <http://www.ccsassociation.org/what-is-ccs/>
4. <https://www.nature.com/articles/d41586-018-02184-x>
5. <https://qz.com/1100221/the-worlds-first-negative-emissions-plant-has-opened-in-iceland-turning-carbon-dioxide-into-stone/>
6. <http://science.sciencemag.org/content/360/6388/476/tab-e-letters>