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Geoengineering on exoplanets

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Solar radiation management (SRM) geoengineering can be used to deliberately alter the Earth's radiation budget, by reflecting sunlight to space. SRM has been suggested as a response to Anthropogenic Global Warming (AGW), to partly or fully balance radiative forcing from AGW [1]. Approximately 22% of sun-like stars have Earth-like exoplanets[2]. Advanced civilisations may exist on these, and may use geoengineering for positive or negative radiative forcing. Additionally, terraforming projects [e.g. 3], may be used to expand alien habitable territory, or for resource management or military operations on non-home planets. Potential observations of alien geoengineering and terraforming may enable detection of technologically advanced alien civilisations, and may help identify widely-used and stable geoengineering technologies. This knowledge may assist the development of safe and stable geoengineering methods for Earth. The potential risks and benefits of possible alien detection of Earth-bound geoengineering schemes must be considered before deployment of terrestrial geoengineering schemes.