$_2 or prevent release of CO_2$, and solar radiation management (SRM) techniques that reflect a small percentage of the $Sun's ra$
$0.4] climate_e ngineering.jpg Schematic illustration of CE technologies. Source : kiel - earth - institute - own work, http$s
$_2$ (coming from the capture-
stage of a power plant) with metal oxide bearing minerals to form insoluble carbonates. This process can be in-situ where CO_2 is
temperature and pressure con ink 2005 ipcc. An example of general carbonation reaction is shown in eq : min carbonation, CO
$_c omparison.[h]|X|X|X|X|$

Enhanced Weathering Mineral Carbonation

Conditions
$_2$ dissolved in water reacts with mineral at ambient temperature and pressure CO_2 gas-
stream reacts with minerals at elevated temperature, pressure or both

CO_2 source Atmosphere Near-
pure CO_2 stream from capture-
stage of power plants/industries

Reaction products **Dissolved metal cations, silica, trace carbonates** **Metal carbonates and silica**

%

%
%
%
(56120) (6.7556) =
0.05625

wt.
of Mg in MgO =
Molecular Wt. of Mg Molecular Wt. of MgO =
24.340.3
%
%
%
×
×

$_{1.88} Fe_{0.12} SiO_4$
[?], is calculated by multiplying the specific surface area with the sample weight.
$_{at} able.$
SampleDateSSA ()Sample mass ()
[?, ?, ?] and plotted as SSA versus mean particle diameter (see $fig : BET_r egression$, the axes have a logarithmic scale). The ave
range of particles rimstidt 2013. Regression analysis gives the following relation :

$$SSA = 60.39(D)^{-1.237} \quad (2)$$

D
?
f

The last sieve size