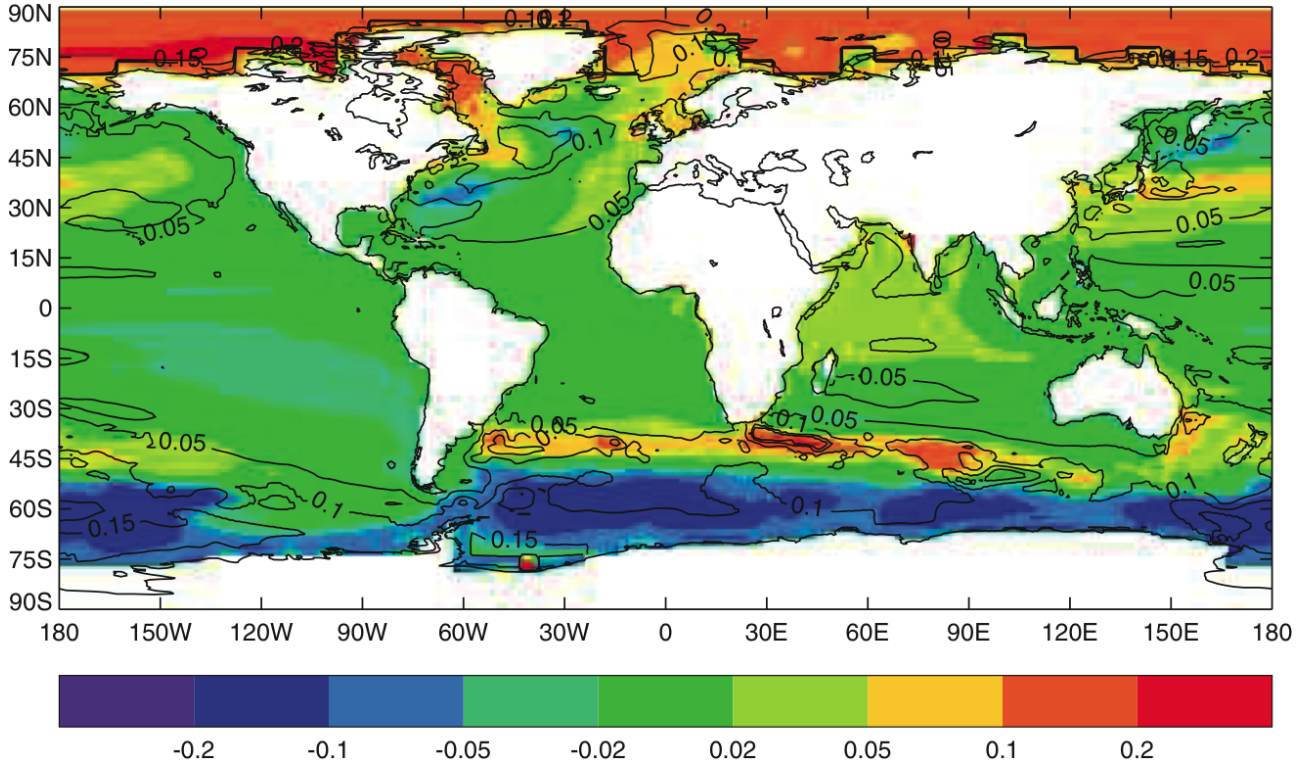

Figure 10.6.2. Local sea level change (m) due to ocean density and circulation change relative to the global average (i.e., positive values indicate greater local sea level change than global) during the 21st century, calculated as the difference between averages for 2080–2100 and 1980–2000 under SRES scenario A1B, as an ensemble mean over 14 AOGCMs. Contour lines show the intraensemble standard deviation.

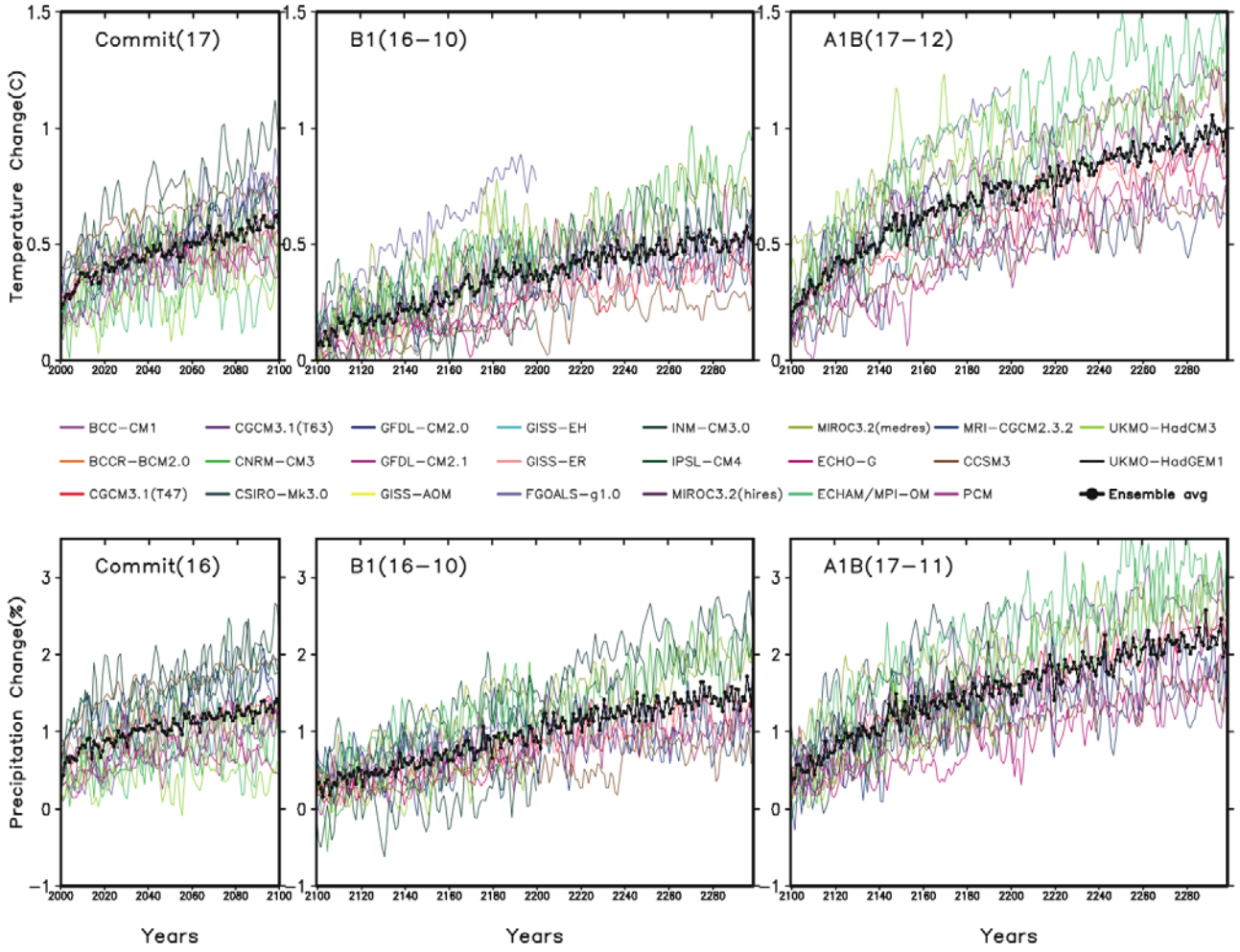

Figure 10.7.1. Top left: Globally averaged surface air temperature change relative to 1980–1999 for the 20th century commitment experiment; Top center: Same as left except for the B1 commitment experiment computed with respect to the 2080–2099 average; Top right: Same as center except for the A1B commitment experiment; Bottom row: same as top row but for percent change in globally averaged precipitation. The numbers in the panels denote the number of models used for each scenario and each century.

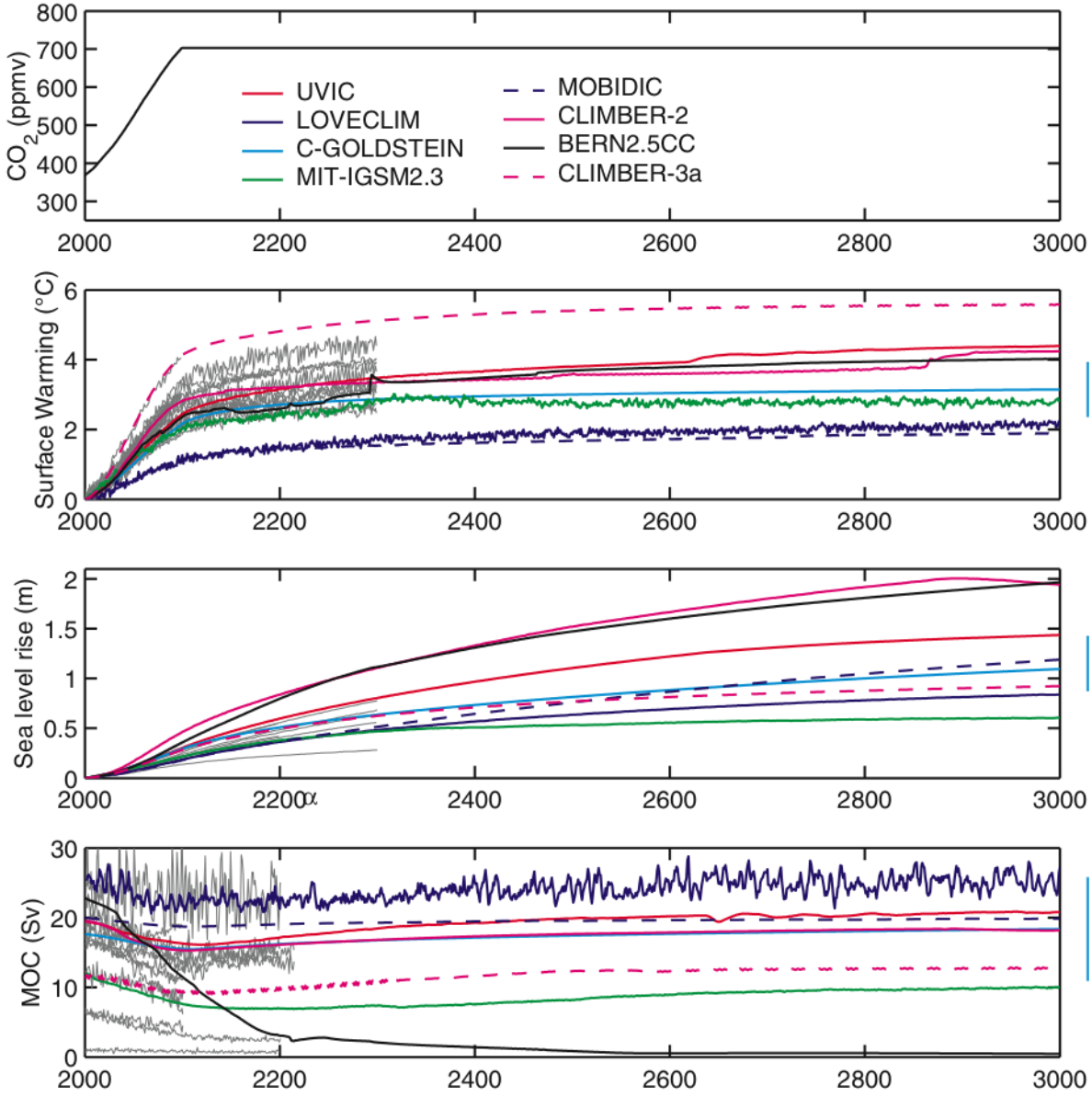

Figure 10.7.2. a) atmospheric CO_2, b) global mean surface warming, c) sea level rise from thermal expansion and d) Atlantic meridional overturning circulation calculated by eight EMICs for the SRES A1B scenario and stable radiative forcing after 2100, showing long-term commitment after stabilization. Coloured lines are results from EMICs, grey lines indicate AOGCM results where available for comparison. Anomalies are given relative to the year 2000. Vertical bars indicate plus/minus two standard deviation uncertainties due to ocean parameter perturbations in the Goldstein model. The MOC shuts down in the Bern model, leading to an additional contribution to sea level rise.

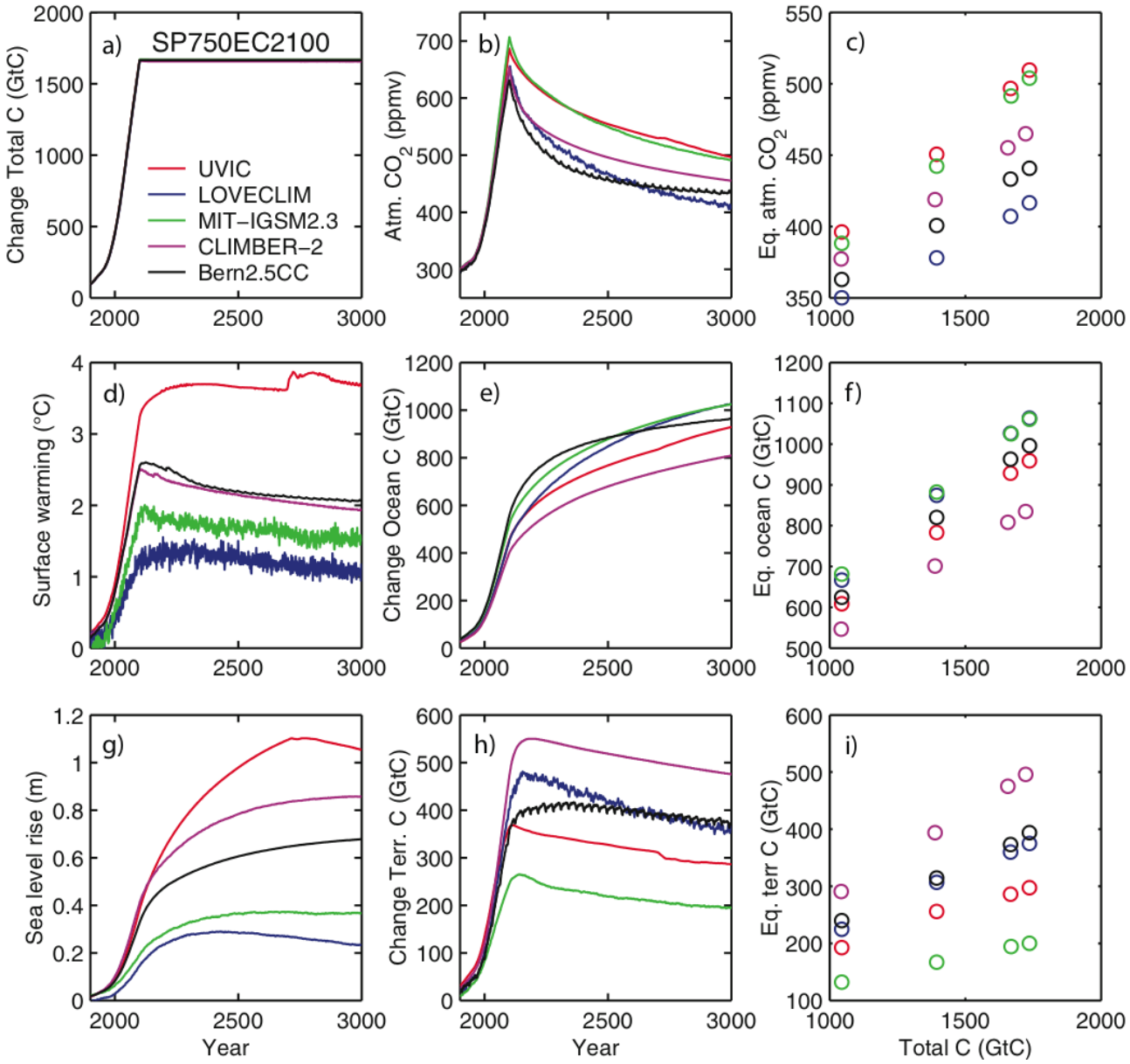

Figure 10.7.3. Changes in carbon inventories and climate response relative to preindustrial for five different intermediate complexity models, in a scenario where emissions follow a pathway leading to stabilization of atmospheric CO_2 at 750 ppmv, but before reaching this target, emissions are reduced to zero instantly at year 2100. a) change in total carbon, b) atmospheric CO_2, d) change in surface temperature, e) change in ocean carbon, g) sea level rise from thermal expansion only, h) change in terrestrial carbon. Right column: c) atmospheric CO_2, f) oceanic and i) terrestrial carbon uptake at year 3000 relative to preindustrial for several emission scenarios of similar shape but with different total carbon emissions.

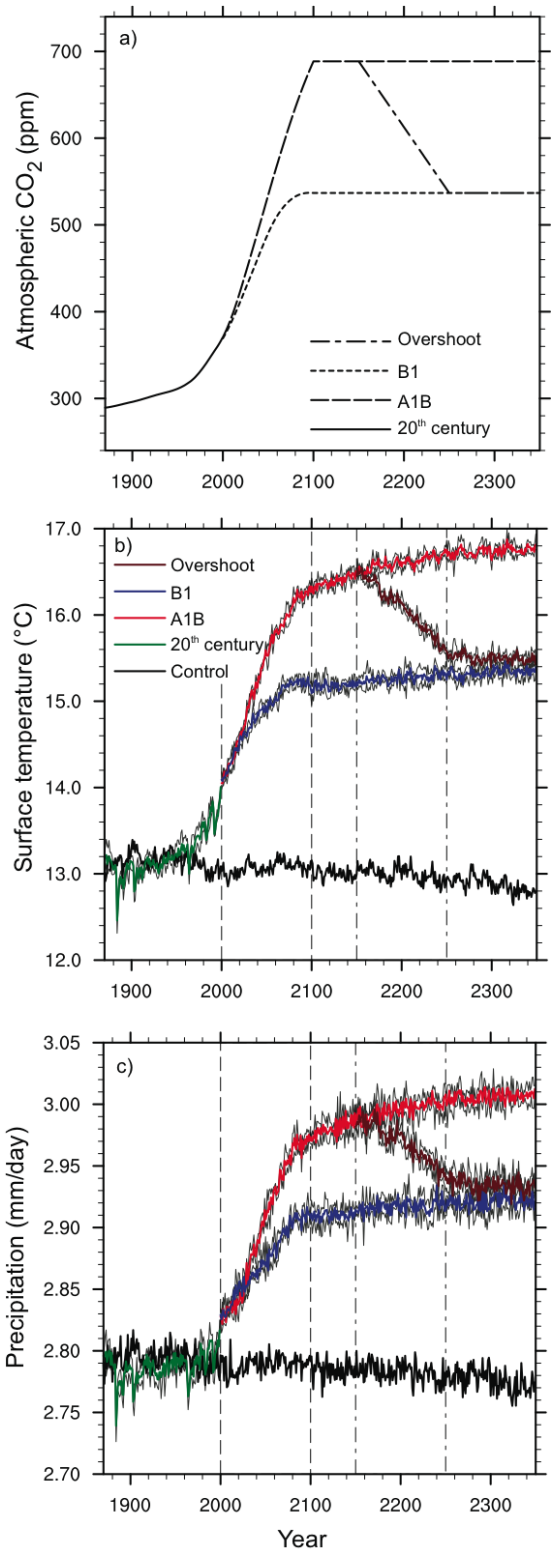

Figure 10.7.4. a) Atmospheric CO_2 concentrations for several experiments simulated with an AOGCM. b) globally averaged surface air temperatures for the overshoot scenario and the A1B and B1 experiments; c) same but for globally averaged precipitation rate. Modified from Yoshida et al. (2005).