



Transient GCM Simulations, 1950 - 2000: aerosol effects in China

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Recent decades have seen a tremendous change in China's economy. This change is accompanied by emissions of various kinds, among them substantial aerosol emissions. Using aerosol emissions data from the National Institute for Environmental Studies (NIES) and the ECHAM5-HAM global climate model, we performed transient simulations covering the period 1950 to 2000. Besides an ensemble of control runs, simulations were carried out in which emissions of individual aerosol categories were frozen at their 1950 values (geographical distribution and total amount). We discuss the regionally varying effect of aerosol emissions on surface solar radiation, temperature, and precipitation.