



On line Coupling of Aerosole Thermodynamic Model with RegCM3

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Development of RegCM3 to be a comprehensive an On-line climate-chemistry model run through two phase. Phase one include coupling of gas-phase chemistry and Second phase include coupling of Aerosole Thermodynamic model. Here ISOROPPIA is coupled with RegCM3 to calculate the composition and phase state of ammonia, sulfate, nitrate, chloride, sodium, calcium, potassium, magnesium, water inorganic aerosole in thermodynamic equilibrium with gas phase precursor.

The coupling include only the direct effect of aerosols. The simulation has been done over Northern Africa and Mediterranean region to study the effect of new aerosoles chemistry on the radiation field and how such aerosoles affect the concentration of surface ozone.