

## Physical and chemical characteristics of aerosols emitted by biomass burning and their impacts on climate

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Large amounts of aerosols are produced by biomass burning including forest fires. Emission factors of aerosols and precursor gases and aerosol mixing state are key factors in evaluating the impacts of biomass burning aerosols on climate. These quantities have been estimated by laboratory experiments and field observations thus far. These parameters were measured with high accuracies by using the state of the art instruments during the NASA ARCTAS campaign conducted in 2008. The latest results are compared with the previous data in relation with the aerosol impacts on climate.