NH-indian: absolute difference surface flux surface flux surface concentration surface concentration surface concentration of BC - shp-10p-red-1950 of SO2 - shp-10p-red-195 of SO4 - shp-10p-red-195 of BC - shp-10p-red-1950 of SO2 - shp-10p-red-19 1e-04 -2e+00 2e-01 -1.1e+00 5e-05 ∆ emibc -40+00 0e+00 -1.3e+00 0e+00 -2e-0 -6e+00 -8e-01 -1.5e+00 -8e+00 2000 2001 2002 2003 2004 2002 2000 2001 2002 2003 2004 2000 2001 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year upwelling longwave flux at TOA – shp-10p-red-195 upwelling shortwave flux at TOA – shp-10p-red-195 upwelling clear-sky longwav flux at TOA - shp-10p-red-1 incident shortwave flux at TOA – shp-10p-red-19! net radiative flux at TOA - shp-10p-red-195 2e-01 5.0e-02 2e-01 1e-01 3e-01 ∆ rlut + rsut ∆ rlut 0e+00 0e+00 0e+00 0.0e + 0.0e +-2e-02 -2 5e-02 -4e-02 -2e-01 -6e-0 -4e-0 -5.0e-02 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year dry deposition rate of BC – shp–10p–red–1950 upwelling clear-sky shortwa clear-sky net radiative implied cloud response wet deposition rate flux at TOA - shp-10p-red-1 flux at TOA - shp-10p-red-19 at TOA - shp-10p-red-195 of BC - shp-10p-red-195 rsutcs) 1.0e-01 1e-0 5.0e-01 2e-01 5.0e-02 2e-01 rlutcs – rsu 0.0e+00 ∆ wetbc 0e+00 ∆ drybc 2.5e-01 0e+00 rsut – -5 0e-02 -5e-02 0.0e+00 -01 (rlut + -2e-01 -2e-01 -1e-01 -1.5e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year total deposition rate of BC – shp–10p–red–195 dry deposition rate of SO2 – shp–10p–red–19 wet deposition rate of SO2 – shp–10p–red–195 dry deposition rate of SO4 – shp–10p–red–19 wet deposition rate of SO4 – shp-10p-red-195 7.5e-01 -2e-010.0e+00 -1.2e+00 5.0e-01 -3e-01 drybc + wetbc -2e-01 -2.5e-01 -1.2e+00wetso4 2.5e-01 _5 0e_01 -4e-01 -1.2e+00 -5e-01 0.0e+00 -7.5e-01 -6e-01 -1.3e+00 -6e-01 -2.5e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year dryso2 + wetso2)/2 + (dryso4 + wetso4)/3total deposition rate Ice water path - shp-10p-Dantethyl sulphide (DMS) mole fraction - sh cloud cover ambient aerosol optical of S - shp-10p-red-19 percentage - shp-10p-red-1 thickness at 550nm - shp-10p-red-1 1e-01 1.5e+00 -1.0e+00 1e+00 1.0e+00 5e-02 clivi (kg m⁻²) 5e-01 _lom lom) smp 당 -1.1e+00 5.0e-01 ∆ od550aeı 0e+00 0e+000.0e+0.0-1.2e+00 -5e-02 -5.0e-01 -5e-01 -1.0e+00 -1e-01 -1.3e+00 -1e+0020002001200220032004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year load load of so4 - shp-10p-red-195 of bc - shp-10p-red-1950 5e-01 loadso4 (kg m⁻²) 5.0e-01 oadbc (kg m 2.5e-01 0e+00 0.0e+00 -5e-01 -2.5e-01 -1e+002000 2001 2002 2003 2004 2000 2001 2002 2003 2004

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