

## AIR POLLUTION

**0601–030.** Akhtar Azra (Naya Gaon, Police Line, Kota). **Effect of simulated acid rain on *Pisum sativum* L. Var. Bonnivillae.** *Indian J Environ Sci*, **10**(1) (2006), 47-50 [11 Ref].

Effect of simulated acid rain of different pH were examined on growth (root and shoot lengths), chlorophyll content and seed productivity of *Pisum sativum* and compared with control (pH 6.7). Plant with different pH solutions showed reduction in root and shoot lengths, chlorophyll contents and seed productivity. It is concluded that the experimental data supports that *Pisum sativum* is not susceptible to acid injury.

**0601–031.** Barik AP (Inst Adv Techno Environ Stud, Bhubaneswar, Orissa). **Fugitive dust emission control in an integrated steel plant.** *Intl Symposium Environ Manag Mining Metallurgical Industries*, 11-14 Dec 2005, Bhubaneswar, 283-291.

In order to keep the environment of iron and integrated steel plant clean and to protect the working community, necessary steps should be taken to control the solids and fluid wastes. An account of various sources of dust emission in an integrated steel plant has been described and various methods to suppress the effect of dusts have been discussed. It is suggested that, Dry Fog Dust Suppression system is the best technology suitable for fugitive dust control in an integrated steel plant.

**0601–032.** Karar Kakoli, Gupta AK, Kumar Animesh, Biswas Arun Kanti, Devotta Sukumar (Dept Civil Engng, Indian Inst Techno, Kharagpur 721302). **Statistical interpretation of weekdays / weekends differences of ambient gaseous pollutants, vehicular traffic and metrological parameters in urban region of Kolkata.** *J Environ Sci Engng*, **47**(3) (2005), 164-175 [15 Ref].

An air quality sampling program has been designed and implemented to collect the concentration of gaseous pollutants (SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub>) at weekdays and weekends from a network of three monitoring stations along a populated urban region of Kolkata. This sites were Kasba (residential), Cossipore (industrial) and Lalbazar (commercial). Average ratio of the weekday/weekend concentrations of SO<sub>2</sub>, NO<sub>2</sub> and NH<sub>3</sub> were 1.41, 1.01 and 0.99 at Kasba; 1.33, 1.13 and 1.10 at Cossipore and 1.09, 1.17 and 1.10 in Lalbazar, respectively.

**0601–033.** Kumar Adarsh, Kazmi Shazia (Env Res Cent, Dept Bot, Feroze Gandhi Coll, Rae Bareli 229001). **Ambient air quality assessment around National Thermal Power**

**Corporation (NTPC), Unchahar, Rae Bareli.** *J Ecophysio Occupl Hlth*, **5**(3&4) (2005), 145-149 [16 Ref].

The air quality was monitored at four different directions around the thermal power plant and control site at interval of three months during the year 2003-2004. The suspended particulate matter (SPM) along with sulphur dioxide (SO<sub>2</sub>) and oxides of nitrogen (NO<sub>x</sub>) were monitored. During the study, the SPM level was found very high. The concentration of NO<sub>x</sub> was observed higher than that of SO<sub>2</sub>. Seasonal variations were also observed.

**0601-034.** Manual JA, Phadka KM, Kumar A\* (\*Natl Environ Engng Res Inst, Nehru Marg, Nagpur 440020). **Soluble organic fraction and benzo-a-pyrene in particulate matter at kerbside and ambient air.** *Cheml Environ Res*, **13**(3&4) (2004), 227-231 [10 Ref].

Concentration of soluble organic fraction (SOF) and benzo-a-pyrene (BaP) were determined in PM<sub>10</sub> samples collected from kerbside sites and ambient air quality (AAQ) sites in Mumbai. The SOF and BaP % in the PM<sub>10</sub> samples from kerbside was 30 and 0.015 whereas the same from AAQ site was 17 and 0.0255 respectively. SOF showed better correlation ( $r=0.82$ ) with kerbside PM<sub>10</sub> whereas BaP ( $r=0.6$ ) with ambient air PM<sub>10</sub>.

**0601-035.** Meenambal T, Palani PK, Dhandapani N, Manikumar R (Dept Civil Engng, Govt Coll Techno, Coimbatore 13). **Air quality modelling of vehicular emission under GIS environment, for Coimbatore corporation (West Zone).** *J Environ Sci Engng*, **47**(3) (2005), 194-201 [5 Ref].

The concentration of carbon-monoxide (CO) along and near the major roads at Coimbatore west zone due to vehicular emission is predicted using the Air Quality Modelling Software called CALINE4 model. Using MAPINFO GIS environment, thematic maps of the CO at different receptor heights were prepared. Also, the concentration of CO for the year 2004 at 1.8m heights and 5m heights were predicted. In addition, to create awareness about the air quality, suggestions have been given to take suitable measures from engineering and environmental point of view.

**0601-036.** Mohanraj R, Azeez PA, Pattabhi S (Sch Environ Sci, Bharthidarshan Univ, Tiruchirapalli 620024). **Automobile pollution in urban Coimbatore, India.** *Nature Env Polln Techno*, **4**(4) (2005), 621-626 [6 Ref].

Study attempts to understand traffic growth and emission from vehicles plying in Coimbatore, a fast growing industries and urban centre. Irrespective of the vehicle type,

about 20% of vehicles examined in the study failed to comply with currently followed emission norms. Bad quality of city roads, unhealthy practices of drivers and resuspension of road dust due to traffic movement are identified as the major problems that can add to vehicular pollution in Coimbatore.

**0601–037.** Senthilnathan T (Dept Phys, Velammal Engng Coll, Chennai 600066). **Status of respirable dust particle (RDP) concentration, a case study in Chennai city.** *J Environ Bio*, **26** (2 Suppl) (2005), 425-428 [8 Ref].

The observed RDP concentration were analysed and found that 90% of the observed values exceed the recommended values of National Ambient Air Quality Standards (NAAQS). The important finding is that the RDP data collected every year from this sampling station were found to give best fit for cubic equations which are very useful for analyzing future trends.

**0601–038.** Soni VK, Sarkar Jayanta (Air Polln Unit, Meteorol Dept, Pune 411005). **Long term variation in precipitation acidity over the Indian Global Atmosphere Watch (GAW) stations.** *Asian J Water Env Polln*, **3**(2) (2006), 35-41 [18 Ref].

The monthly variation of long term trend in pH,  $\text{SO}_4^{2-}$  and  $\text{NO}_3^-$  have been studied over a network of ten Global Atmosphere Watch (GAW) stations in India for the period from 1981 to 2002. During the period, significant shift in pH towards the acidic range and increasing trend in sulphate and nitrate concentration have been observed at most of the GAW stations.

**0601–039.** Srivastava Arun, Jain VK\* (\*Sch Environ Sci, Jawaharlal Nehru Univ, New Delhi 110067). **A study to characterise the influence of outdoor SPM and associated metals on indoor environment in India.** *J Environ Sci Engng*, **47**(3) (2005), 222-231 [39 Ref].

It is observed that, depending upon the nature of the site, the outdoor SPM concentration affect the indoor SPM concentration in varying degrees. In case of metals such as Cu, Cr, Cd and Ni, very good correlation between the indoor and outdoor concentrations was observed irrespective of the nature of the site. The concentration between indoor and outdoor for Mg, Fe, Mn and Pb depends upon the nature of the site. No correlation was observed between indoor and outdoor Ca at any of the chosen sites.