heart. The cyanide ion is very similar to CO in that it binds to haemoglobin rendering it useless. The sodium or potassium salts are the deadliest forms as they dissociate readily. About 2.8 mg/Kg of body weight is lethal. The biological effect of NO^+ is not commonly known but it is likely to be reduced to NO which is a very important signalling molecule in the cell. What makes the isoelectronic molecules N_2, CO, CN^-, NO^+ to behave so differently?

Inertness Makes it Useful

Apart from these interesting 'academic' facts about dinitrogen, one should not forget that there are several uses for it. The most common use for dinitrogen is its utility in preservation of food and its use as a cryogenic fluid. The liquid boils at 77 K and freezes at 63 K. As a result, liquid N_2 is used to preserve many food and biological materials in a frozen condition. It is used extensively in laboratories as a cryogen. Cooked food can be oxidized or become rancid in contact with air. If the packing is done under inert atmosphere, the food inside the package is safe from oxidation and the 'freshness' is preserved. Potato chips, coffee, and several fully cooked meals are packed under nitrogen to preserve freshness. Since nitrogen is readily available in the atmosphere, it is convenient to use this molecule as an inert blanket while welding where the joint has to be protected from oxidation especially when it is hot. More uses for this 'noble' molecule are available in the textbooks and in the open source encyclopedia [11].

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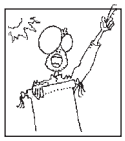

Information and Announcements

Ramanujan Mathematical Society

National Instructional Workshop on Complex Analysis, June 1-5, 2007 and 22nd Annual Conference, June 6-8, 2007 at Department of Mathematical and Computational Sciences, National Institute of Technology Karnataka, Surathkal, Post: Srinivasanagar, Mangalore 570 025.

For details, please see: http://www.ramanujanmathsociety.org