

b.y. The dyke orientations did not show any correlation with age. In the south-western part of the basin, a gravity high (+ 60 mgals within a broader low of about - 23 mgal) was pointed out indicating the presence of denser material (3 to 3.1 gm/cc) in the form of a lopolith.

T. Radhakrishna described the mafic dykes in Kerala. The significant point made out by him was that the mafic dyke intrusion in Kerala was initiated during Early-Mid Proterozoic period contrary to the prevailing notion that the dykes in Kerala are related to the Late Cretaceous rifting of western continental margin off India. Age data suggested four periods of formation 2.1-2.2, 1.4-1.6, 0.4-0.5 and 0.1-0.15 Ga.

The Conference did not address itself to the relationship between dyke swarms and ore deposits. Nor did it attempt at identifying the feeder dyke swarms for the lower mafic flows of Archaean greenstone belts. These aspects too are important to make studies on Lithospheric evolution complete. The Conference discussed in great detail the diversified aspects relating to dyke swarms and helped in synthesising present knowledge on mafic dyke swarms: The staff of the Geology Department, Erindale Campus (Toronto) deserve our sincere thanks for the excellent arrangements made which allowed for a free and frank discussion.

Centre for Earth Science Studies  
Trivandrum

T. RADHAKRISHNA

## ISOTOPIC DATING

Geochemists distinguish between *precision*, the measure of how well an analysis can be repeated, and *accuracy*, the measure of how close the analysis is to the truth. In the Phanerozoic, fossils provide a dating tool of very high precision but little chronometric accuracy. Since precision is all that is needed for correlation and the construction of a column, a stratigraphic column can be set up by the use of fossils alone: all that radiometric methods add is accuracy. Phanerozoic stratigraphy is defined in sedimentary rocks because they are the rocks which contain the best dating tool. In the Precambrian, the best dating tools are isotopic, thus the stratigraphy must be defined in those rocks in which the tools are most precise. Correlation of sedimentary units over wide areas is typically not possible in the Precambrian. The golden spikes should be placed where precision of the dating tool is best, presumably in fresh, high-level igneous rock or in strata which have had well-understood thermal and alteration histories. Any change in isotopic decay constant would simply change the age but not the precision of the stratigraphy and would not disrupt the order of the column.

(F. C. NISBET. *Geol. Mag.* 1985, p. 85)