

Editorial

C S Yogananda, Associate Editor

Arcturus, Swāti, is one of the brightest stars (magnitude zero) in the northern skies (see p. 84 and Star Chart, *Resonance*, August 2001) prominently visible during May-September. Astronomers had first estimated (wrongly, as it turned out later) its distance from the earth to be 40 light years (the correct value is 37 light years). This erroneous value was creatively used when its light was focussed onto a photovoltaic cell which triggered the switch to open the 1933 World fair in Chicago, as that light had left the star at about the time of the previous Chicago fair in 1893! Photovoltaic cells were new and exciting technology back in 1933 but the quest for better, more efficient, economical photovoltaic cells has continued resulting in recent discovery of *dye sensitized* photovoltaic cells (DSVP). Ravi Mosurkal explains the concept of DSVP and gives an account of its current status.



This issue of *Resonance* features one of the brightest stars of Indian science in the 20th century, G N Ramachandran who, incidentally, was born in October. GNR's career has a lot of similarity with that of his teacher C V Raman – both had their full careers, education and research, in India, both made significant contributions to science which had tremendous impact, both inspired generations of students and, in spite of their proven worth, both had to struggle with the system to pursue their goals – and one conspicuous difference – Raman was deservedly awarded the Nobel Prize but GNR, though very deserving was not. We have been fortunate in being able to present to our readers glimpses of GNR's life and achievements through articles by persons who worked with him and who knew him well. D N Rao needs to be congratulated for organising this *Ramachandran Map*.

Utpal Mukhopadhyay gives a sketch of some contributions of the Bernoulli brothers who are from that incredible family of mathematicians (see also, *Resonance*, Vol. 5, No. 8, 2000, p. 26).

The year 2001 also happens to be the centenary year of peptide chemistry. You will enjoy reading about the birth and development of this branch of chemistry (and biology) in the article by V V Suresh Babu.

Finally, when you are done with a first browsing of this issue get hold of the audio cassette, *Call of Indian Birds* (see p. 96), play it, preferably sitting in a garden, and reflect on the life and times of GNR!

