

Remembering Dr. A.K Singh



Dr A K Singh along with Director Dr T S Prahlad during CSIR Foundation Day (celebrated as Materials Science Day) Celebrations on 26 Sep, 1999.

Dignitaries on the dias (L to R): Mrs Saroja Rajagopal, Mr M R Narasimha Swamy, Dr S R Rajagopal, Dr T S Prahlad, Dr A K Singh, Dr A C Raghuram and Dr R V Krishnan.



Dr A K Singh delivering lecture on "New Materials Development–Challenges" during the event

In this brief note, I pay tribute to the memory of Dr. A.K Singh who passed away on 30th June 2025. He was 86 years old. He will for ever be linked with NAL in general and Materials Science Division in particular. He was the Head of MSD for around 20 years. I worked with him in the area high pressure science and technology from 1977 to 1996 and he was my mentor. For me he has not passed away – he is merely away.

His areas of interest were characterization of materials by x-ray diffraction, measurement of equation of state of solids, pressure induced structural phase transitions, synthesis and sintering of ceramics under high pressure and high temperature, effect of non-hydrostatic stress component on the lattice strains and high-pressure instrumentation. He has over 200 papers in peer reviewed journals and edited three conference proceedings.

Dr. Singh worked at the University of California, Los Angeles (1972-76), visited Japan in 1982 and 1987 under the INSA-JSPS programme and USA in 1990 under the NSF exchange programme. He was a member of the Commission on Crystallography and International Union of Crystallography. He was on the Executive Committee of the International Association Advancement of High-Pressure Science and Technology (AIRAPT) as a corresponding member during 1983-91 and a full member since 1991.

He was the Chairman of the XIII AIRAPT International conference held at NAL. 195 delegates (USA 31, Japan 24, USSR 10, 10 other countries and 100 India) participated in the conference and 223 papers were presented. The proceedings of the conference 'Recent trends in high pressure research' by Oxford-IBH were edited by Dr. A.K Singh.

Dr. Singh superannuated in 1999 and continued his second innings of R and D work. He amply demonstrated the wealth of additional information that can be obtained on elasticity of materials under non hydrostatic stress conditions. Amongst many international groups he worked with, the collaboration with Drs.Ho-Kwang Mao and Russel J Hemley of Geophysical laboratory and Centre for High Pressure Research, Carnegie Institute of Washington, stands out. This activity gathered momentum and soon we started hearing words such as Singh's method, Singh's equation and Singh's school of thinking and Singh's model amongst the high-pressure science community in the post 1995 conferences and the related publications. It is noteworthy that 50 out of 200 publications were in his 'Second innings'.

Dr. Singh encouraged doing basic research in the MSD and in publishing the results in peer-reviewed journals. He was a true inspiration. His guidance helped me navigate my career. I will always be grateful for his unwavering support. I salute Dr. A.K. Singh, an outstanding scientist and an able administrator and above all a wonderful human being. May his soul rest in peace. I offer my deepest condolences to the bereaved family.

Murali Mohan
Former Chief Scientist, MSD/IFCAP