

JAPAN HOLDS 4TH INTERNATIONAL SYMPOSIUM ON GONDWANA TO ASIA AND 2007 IAGR ANNUAL CONVENTION

The symposium was attended by nearly 110 Japanese and overseas delegates from 26 countries in Fukuoka one of the major Japanese industrial centres and port city with rich cultural heritage

The symposium had four well defined major scientific sessions with distinct themes including (1) Beyond Gondwana, Archaean Earth history (Conveners S A Wilde and M Santosh), (2) Birth of Gondwana (Conveners A Collins and K Shirashi), (3) After Gondwana -- Asian continental growth (Conveners Y Osanai, B F Windley, T N Nam and N X Khien), (4) Gondwana metallogeny (Conveners R J Goldfarb and Y Watanabe)

During two day session there were 10 keynote presentations dealing with thematic issues on the evolution of planet Earth through time which is of current global interest and relevance. The other 28 oral presentations were related to four themes mentioned above dealing with crustal accretion, metamorphism, mineralization, tectonics that include formation and breakup of supercontinents through time. The following papers are of special interest to India

Michael Brown presented a synthesis on metamorphism and tectonics under two very different thermal regimes, one characterized by high P and low T meta-morphism corresponding to subduction zone, second characterized by high-T and low-P corresponding to back arc or orogenic hinterland. This duality of thermal regimes, the hallmark of plate tectonics, is documented in the rock record from Neoproterozoic to Cambrian

Simon Wilde presented interesting data on the earliest history of planet Earth based on Pb and O isotope data on oldest zircons and suggested that elevated $\delta^{18}\text{O}$ values above the mantle value $5.3 \pm 0.3\%$ indicate evolution of 4.3 Ga zircons in magmas derived from protoliths that were previously altered by low temperature interactions with liquid water. The problems to magmas in which zircons crystallized might be hydrated oceanic crust. The presence of micro-diamonds in Jack Hill zircons imply thick continental lithosphere and crust-mantle interaction at ~ 4.24 Ga ago

Santosh presented an interesting talk on the birth of super plumes, assembly and breakup of supercontinents, degassing of CO_2 and activated plate tectonics that triggered material transfer and drastic environmental changes. He also discussed thermal anomalies and fluid flows in relation to the plate tectonic architecture of the planet earth, which are fundamental to the understanding of origin of continents

Alfred Korener described interesting old zircon ages in the metamorphic terrains of central Asian basement in Mongolia and Kazakastan. His new data indicate oldest remnants of 2791 ± 24 Ma, with inheritance as old as 3120 Ma in Neoproterozoic basement rocks

Richard Goldfarb highlighted the significant changes in global exploration patterns of gold in the light of recognition of highly prospective regimes throughout Asia. According to him, the high degree of prospectivity reflects favourable geological settings in

Palaeozoic-early Mesozoic suturing of Siberia, Kazakastan, North China, South China, eastern edges of Tethys Ocean and late Mesozoic circum Pacific-plate reorganization

Yasuhiro Osanai reviewed the significance of Trans-Vietnam orogenic belt in understanding the tectonic evolution of Indo-China craton as well as growth of Asian continents

Three scientists from India (M Jayananda, T R K Chetty and M N Balasubramanian) participated in the symposium. M Jayananda presented the discovery of ultra-high temperature metamorphic mineral assemblages together with zircon and monazite ages for multiple thermal events from the central part of EDC. He also presented the monazite ages of 3.2 Ga, 2.6 Ga, 2.5 Ga for thermal events and detrital zircon ages as old as 3500-3600 Ma for the provenance. T R K Chetty discussed the crustal architecture of the northern parts of the Eastern Ghats mobile belt and invoked a 'Flower structure' across the composite Mahanadi terrane that exposed different domains displaying distinctive internal structures with varying geological evolution and strain partitioning. He also correlated the Mahanadi rift with the Lambert rift, East Antarctica, during pre-Gondwana breakup. M N Balasubramanian presented Pan-African ages for the Eastern Ghats Mobile belt

A 206 page elegant abstract volume (IAGR conference series no 4) has been brought out with meticulous care containing 99 abstracts (Eds N Nakano, Y Osanai, T Miyamoto and M Santosh). The two-day scientific deliberations revealed growing evidence for the strong linkage between plate tectonics, super plumes, deformation, magmatism, metamorphism and mineralization throughout the earth history. The first IAGR best paper award was presented to Ben Goscombe of Australia for the paper entitled 'Determining crustal architecture using integrated terrain analysis: example from eastern Nepal Himalayas' during the banquet dinner in a cruise in the Hakata bay

The conference was followed by a well conducted 3-day field excursion in the Kyushu islands (11-13 November, 2007), which included a visit to high grade Higo metamorphic terrain, world famous Aso active volcano and drive in - Hishikari Gold Mine. In summary, all the delegates were able to get first hand account of the recent advances in solid earth processes and Gondwana geology in particular. The delegates enjoyed thoroughly the Japanese hospitality and carried home new friendships and good memories. The organizers of the conference deserve compliments from all delegates for a very well organized symposium

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