

use. Other advantages of sago medium are: (i) easy availability of components all round the year, and (ii) easy and quick preparation process. The medium can be studied further by improvising upon its quality.

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R. B. BINKY<sup>1</sup>\*  
R. SAIKIRAN<sup>1</sup>  
S. TUSHAR<sup>1</sup>  
P. UMESH<sup>1</sup>  
J. YOGESH<sup>1</sup>  
A. N. SYED<sup>2</sup>

<sup>1</sup>Bio-Engineering and Research Centre, Roy Foundation Colleges, Belapur, Navi Mumbai 400 614, India

<sup>2</sup>Advy Chemical, Waghale Estate, Thane, Mumbai 400 604, India

\*For correspondence.

e-mail: binkyrbhaumik@yahoo.com

## Uranium–thorium-rich zircon in a granitoid dyke along the Shyok Suture Zone, Nubra–Shyok River Valley, Northern Ladakh, India

In northern India, the Ladakh block lies between the Indian Plate to its south and the Eurasian Plate to its north. To its west, it is largely separated from the Kohistan Complex by the Nanga Parbat–Haramosh syntaxis and to its east, it is cut-off from the Lhasa block by the Karakoram Fault<sup>1</sup>. Most workers have interpreted the Ladakh block and Kohistan Complex as a single accreted island-arc terrane<sup>1–5</sup>. The Ladakh block is delineated by two suture zones, viz. the Indus and the Shyok, which mark the closing of different branches of the Tethys Ocean and finally the collision of India with Asia at 60–50 Ma. The Shyok Suture Zone lies to the north of the Indus Suture Zone and is interpreted as a suture embodying the rocks of a backarc basin<sup>1</sup>.

Rocks of the Shyok Suture Zone, trending northwest–southeast across the Nubra–Shyok Valley, occur in deformed tectonic slices between the Ladakh

batholith to the southwest and the Karakoram batholith to the northeast. Across the Nubra–Shyok Valley and the adjoining Karakoram block, these tectonic slices comprise a variety of sedimentary, metamorphic and volcano-plutonic rocks, referred to as an accretionary complex<sup>2,6</sup>. The geological structure of the Shyok Suture Zone has been recently discussed elsewhere<sup>1,2,6–8</sup>.

Udmuru village is situated on a volcanic rock formation known as the Shyok Volcanics, along the Shyok Suture Zone in the Nubra–Shyok River Valley. These Cretaceous Shyok Volcanics mainly consist of basalts and andesites. North of Udmuru, a ~5–10 m thick granite–pegmatite dyke dissecting across the Cretaceous Shyok Volcanics for a considerable distance has been reported<sup>9</sup>. A preliminary study revealed that a sample of hornblende–biotite-bearing monzogranite contained abundant, small-to-medium grained, euhedral, greenish-coloured zircon. Geochemical analysis of the separated zircon grains showed exceptionally high concentration of both uranium and thorium (0.31–5.36% U and 0.76–1.43% Th; Table 1). The major and trace element geochemical data of granitoid are 71 wt% SiO<sub>2</sub>, 14.74 wt% Al<sub>2</sub>O<sub>3</sub>, 2 wt% Fe<sub>2</sub>O<sub>3</sub>, 1203 ppm Sr and 2135 ppm Ba. The purpose of this short communication is to report the presence of highly radioactive zircon within the Ladakh block of the India–Asia collision zone. Detailed work is in progress.

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RAJEEV UPADHYAY

Department of Geology,  
Kumaun University,  
Nainital 263 002, India  
e-mail: Rajeev\_up@yahoo.com

**Table 1.** U and Th contents in zircon from a monzogranite dyke along the Shyok Suture Zone in the Nubra–Shyok River Valley, Ladakh Himalaya. Samples were analysed by TIMS at the Isotope Laboratory of the University of Tuebingen, Germany under the aegis of the Alexander von Humboldt Fellowship

Sample weight (separated zircon; mg)	Uranium	Thorium
0.0168	3847.3 ppm	8736 ppm
0.0103	5.36%	1.43%
0.0132	3102.3 ppm	1.11%
0.0192	3070.8 ppm	7644 ppm