

## **Greater South China: detrital zircon chronology of Paleozoic sandstones in Japan and Primorye, Russia**

YUKIO ISOZAKI<sup>1\*</sup>, HIROKI NAKAHATA<sup>1</sup>, SHUHEI SAKATA<sup>1</sup>, YURI ZAKHAROV<sup>2</sup>, TAKAFUMI HIRATA<sup>3</sup>

<sup>1</sup> Department of Earth Science and Astronomy, the University of Tokyo, Japan/isozaki@ea.c.u-tokyo.ac.jp

<sup>2</sup> Russian Academy of Science, Vladivostok, Russia/yurizakh@mail.ru

<sup>3</sup> Department of Earth and Planetary Science, Kyoto University/hrt1@kueps.kyoto-u.ac.jp

The origin of proto-Japan was clarified by the latest study on detrital zircon chronology of Middle–Upper Paleozoic sandstones of continental shelf in SW Japan by LA-ICPMS. Additional study on coeval sandstones from the Sergeevka belt around the Khanka block in Primorye, Far East Russia, indicate the similar origin; i.e. the South China block. These sandstones share similar age spectra of detrital zircons, with dominant Phanerozoic grains and the significant cluster of Neoproterozoic ones. The latter were likely derived from the South China block but nowhere else among possible older continental blocks in East Asia. During the Paleozoic, the conterminous South China on the mainland, the East China Sea, SW-NE Japan, and a part of Primorye belonged to a large continental entity named “Greater South China (GSC)” (Isozaki, 2014), which was twice larger than the present South China block. GSC was born when the supercontinent Rodinia broke up around 700 Ma, and existed until the mid-Triassic collision with North China block; i.e. the amalgamation into Asia. GSC is exotic to Central Asian Orogenic Belt, and all Paleozoic subduction-related orogenic elements in Japan and surroundings were formed along the Pacific margin of GSC.

[1] Isozaki et al. (2014), GFF 136, 116-119.