

Discussion regarding Trapped Charge Dating Association (TCDA) on the Chinese-LED meeting, 2018

Date: 29-03-2018 to 30-03-2018

Location: Shanghai, China

Organiser:

* Luminescence and ESR Dating Committee, Chinese Association for Conservation Technology of Cultural Heritage;

* Luminescence Dating Laboratory for Ancient Ceramics, Shanghai Museum

Participants: 126 attendees from 45 laboratories in China and six other countries/regions with oversea Chinese Researchers (China mainland, Hong Kong (China), Australia, Denmark, UK, Taipei (China))

Background: The Chinese LED meeting is held every two years since 1988. It is the largest one in the field of Luminescence and ESR Dating and has an important influence in China. This one in Shanghai is the 16th Chinese LED.

The discussion and nomination process in Shanghai was chaired by Shenghua Li (University of Hong Kong, China)

Plenary discussion (30-03-2018)

- Shenghua Li welcomed everyone and briefly outlined the motivation of this discussion regarding the Trapped Charge Dating Association (TCDA). He briefly introduced the preliminary idea of setting up the TCDA on the Cape Town LED conference that gained support from the majority of participants. He emphasized that this association should be constructed by a broadly representative group of active researchers.
- Jie Chen and Gongming Yin (Institute of Geology, China Earthquake Administration), Junding Xia (Shanghai Museum), Jiafu Zhang and Liping Zhou (Peking University) made further statements and discussions on how TCDA would benefit the scientific community, such as promoting intra-laboratory cross-checking, improving reporting standards or guidelines, etc. Meanwhile, we should be aware of that luminescence dating is very complicated and it is by far not mature enough to adopt a standard approach and coherent set of dating guidelines. There are still many unsolved issues even for the most developed quartz OSL signal that dominated by the fast component (thermal stability for instance).
- The main vision and the proposed '13 statements' of TCDA were discussed on the meeting, particularly the potential contribution and obligation related to the Chinese LED community.
- The majority of the participants reached a consensus that Chinese community will join in the TCDA.
- To better develop the quality of trapped charge dating, the TCDA should be a bottom-up organisation, and all activity is expected to be representative, transparent, democratic and driven by the community.
- To achieve a better representation, it was agreed on the Shanghai that the Chinese LED community has a strong appeal to have four representatives of TCDA, since China has the largest number of both active

researchers and labs. According to our incomplete survey conducted after the Shanghai meeting, there are more than 40 active labs and more than 50 readers in service in China, some of which have made outstanding contribution to the community. There are also a big number of Chinese students and researchers studying/working in the luminescence labs around the world.

- Furthermore, the TCDA should advise on the nomination procedure regarding the international LED.
- The participants also expressed their support to establish a journal of the TCDA, which needs to be open access. Improve the existing journals *Geochronometria* and *Ancient TL* is one possible way, the other alternative is to establish a new open access journal.
- In case of any potential bias, the member of TCDA should claim no interest relationship with the instrumental companies.

Nomination of representatives (30-03-2017)

All participants of the LED in Shanghai had the opportunity to interview potential candidates who express interest in becoming members of the international working group and to represent the Chinese luminescence community. Eventually, the Chinese LED meeting has nominated the following four persons as the representatives of TCDA working group:

Jie Chen (Institute of Geology, China Earthquake Administration)

Yiwei Chen (Guangzhou Institute of Geochemistry, Chinese Academy of Sciences)

Jintang Qin (Institute of Geology, China Earthquake Administration)

Jingran Zhang (School of Geography Science, Nanjing Normal University)