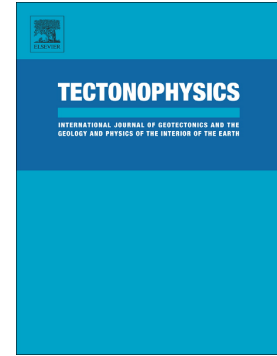


Accepted Manuscript

Late Cenozoic tectonic activity of the Altyn Tagh range:
Constraints from sedimentary records from the Western Qaidam
Basin, NE Tibetan Plateau

Tao Zhang, Xiaomin Fang, Yadong Wang, Chunhui Song, Weilin
Zhang, Maodu Yan, Wenxia Han, Dawen Zhang



PII: S0040-1951(18)30170-7
DOI: doi:[10.1016/j.tecto.2018.04.021](https://doi.org/10.1016/j.tecto.2018.04.021)
Reference: TECTO 127833
To appear in: *Tectonophysics*
Received date: 8 July 2017
Revised date: 26 March 2018
Accepted date: 28 April 2018

Please cite this article as: Tao Zhang, Xiaomin Fang, Yadong Wang, Chunhui Song, Weilin Zhang, Maodu Yan, Wenxia Han, Dawen Zhang , Late Cenozoic tectonic activity of the Altyn Tagh range: Constraints from sedimentary records from the Western Qaidam Basin, NE Tibetan Plateau. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Tecto(2017), doi:[10.1016/j.tecto.2018.04.021](https://doi.org/10.1016/j.tecto.2018.04.021)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Late Cenozoic tectonic activity of the Altyn Tagh range: constraints from sedimentary records from the Western Qaidam Basin, NE Tibetan Plateau

Tao Zhang^{1*}, Xiaomin Fang^{1,2}, Yadong Wang³, Chunhui Song⁴, Weilin Zhang¹, Maodu Yan¹,
Wenxia Han⁵, Dawen Zhang¹

1. Institute of Tibetan Plateau Research, CAS & CAS Center for Excellence in Tibetan Plateau Earth Sciences, Beijing, 100085, China

2. University of Chinese Academy of Sciences, 19A Yuquan Road, Beijing, 100049, China

3. Gansu Provincial Key Laboratory of Petroleum Resources, Key Laboratory of Petroleum Resources Research, Institute of Geology and Geophysics, Chinese Academy of Sciences, Lanzhou 730000, China

4. Key Laboratory of Petroleum Resources Research, Institute of Geology and Geophysics, Chinese Academy of Sciences, Lanzhou 730000, China

5. Key Laboratory of Salt Lake Geology and Environment of Qinghai Province, Qinghai Institute of Salt Lakes, Chinese Academy of Sciences, Xining 810008, China

* Corresponding author: zhangtao@itpcas.ac.cn (T. Zhang).

Abstract: The Altyn Tagh range (ATR) is the northern geological boundary of the Tibetan Plateau and plays a key role in accommodating its Cenozoic lithospheric deformation. However, knowledge of the structural style and age of uplift of the ATR is limited and controversial. The Qaidam Basin, in the southeast side of the ATR, provides an outstanding field laboratory for understanding the history and mechanisms of ATR growth. This study presents the results of a detailed sedimentological analysis of a 1040-m-thick late Cenozoic (~17-5.0 Ma) sedimentary sequence from the western Qaidam Basin, together with the analysis of sedimentological data from nearby boreholes and sections. Our aims were to determine the spatiotemporal evolution of the sedimentary sequences in the study area and to explore their response to late Cenozoic tectonic activity in the ATR. The results show three major intervals of the sedimentary characteristics in the study area: ~>17-16 Ma, 10 Ma and <5 Ma, which are closely related to the development of

Download English Version:

<https://daneshyari.com/en/article/8908660>

Download Persian Version:

<https://daneshyari.com/article/8908660>

[Daneshyari.com](https://daneshyari.com)