



Geochemistry, Geophysics, Geosystems

Supporting Information for

Distinct control mechanism of fine-grained sediments from Yellow River and Kyushu supply in the northern Okinawa Trough since the last glacial

Debo Zhao^{1,3}, Shiming Wan^{1, 2, 4*}, Samuel Toucanne⁵, Peter D. Clift⁶, Ryuji Tada⁷, Sidonie Révillon⁸, Yoshimi Kubota⁹, Xufeng Zheng¹⁰, Zhaojie Yu¹¹, Jie Huang¹, Hanchao Jiang¹², Zhaokai Xu¹, Xuefa Shi¹³, Anchun Li¹

¹ Key Laboratory of Marine Geology and Environment, Institute of Oceanology, Chinese Academy of Sciences, Qingdao 266071, ² Laboratory for Marine Geology, Qingdao National Laboratory for Marine Science and Technology, Qingdao 266061, China, ³ University of Chinese Academy of Sciences, Beijing

100049, China, ⁴ Centre de Recherches Pétrographiques et Géochimiques (CRPG), UPR 2300, CNRS-Université de Lorraine, 15 Rue de Notre Dame des Pauvres, 54501 Vandoeuvre les Nancy, Cedex, France, ⁵ IFREMER, Unité de Recherche Géosciences Marines, BP70, 29280 Plouzané, France,

⁶ Department of Geology and Geophysics, Louisiana State University, Baton Rouge, Louisiana70803, USA, ⁷ Department of Earth and Planetary Science, University of Tokyo, Tokyo 113-0033, Japan, ⁸ SEDISOR/UMR6538 “Domaines Oceaniques”, IUEM, Place Nicolas Copernic, 29280, Plouzane, France,

⁹ Department of Geology, National Museum of Nature and Science, Ibaraki 305-0005, Japan, ¹⁰ Key Laboratory of Marginal Sea Geology, South China Sea Institute of Oceanology, Chinese Academy of Sciences, Guangzhou, 510301, China, ¹¹ Laboratoire GEOsciences Paris-Sud (GEOPS), UMR8148, CNRS-Université de Paris-Sud, Université Paris-Saclay, Bâtiment 504, 91405 Orsay Cedex, France, ¹² State Key Laboratory of Earthquake Dynamics, Institutue of Geology, China Earthquake Administration, Beijing 100029, China, ¹³ Key Laboratory of Marine Sedimentology and Environmental Geology, First Institute of Oceanography, SOA, Qingdao 266061, China

Additional Supporting Information (Files uploaded separately)

Captions for Dataset S1

Introduction

The data set S1 contain the complete clay minerals data (clay mineral assemblages, smectite crystallinity, illite chemical index and crystallinity) at IODP Site U1429 from the northern Okinawa Trough since the last 34 ka. The detailed analytical methods of clay minerals can be found in the text of manuscript.

* Corresponding author. Tel.: +86-532-8289-8535; Fax: +86-532-8289-8526.
E-mail address: wanshiming@ms.qdio.ac.cn (S. Wan)

Data Set S1. Downcore variations in clay mineral assemblages, smectite crystallinity, illite chemical index and crystallinity at IODP Site U1429 from the northern Okinawa Trough since the last 34 ka.