

---

# Contents

|  |  |            |
|--|--|------------|
| <b>1</b>   | <b>Corresponding Main Metallogenic Epochs to Key Geological Events in the North China Craton: An Example for Secular Changes in the Evolving Earth . . . . .</b>                 | <b>1</b>   |
|  | Mingguo Zhai and Xiyan Zhu   |            |
| <b>Part I Archean Crustal Growth and Metallogeny</b>         |  |            |
| <b>2</b>   | <b>Archean Continental Crust in the Southern North China Craton . . . . .</b>  | <b>29</b>  |
|  | Chunrong Diwu, Chengli Zhang, and Yong Sun   |            |
| <b>3</b>   | <b>Structural Architecture and Spatial-Temporal Distribution of the Archean Domains in the Eastern North China Craton . . . . .</b>  | <b>45</b>  |
|  | Peng Peng  |            |
| <b>4</b>   | <b>Formation Ages and Environments of Early Precambrian Banded Iron Formation in the North China Craton . . . . .</b>  | <b>65</b>  |
|  | Yu-Yheng Wan, Dun-Yi Liu, Hang-Qiang Xie, Alfred Kröner, Peng Ren, Shou-Jie Liu, Shi-Wen Xie, Chun-Yan Dong, and Ming-Zhu Ma   |            |
| <b>5</b>   | <b>Neoarchean Banded Iron Formations in the North China Craton: Geology, Geochemistry, and Its Implications . . . . .</b>  | <b>85</b>  |
|  | Lianchang Zhang, Changle Wang, Mingtian Zhu, Hua Huang, and Zidong Peng  |            |
| <b>6</b>   | <b>Archean Continental Crustal Accretion and Banded Iron Formations, Southeastern North China Craton . . . . .</b>   | <b>105</b> |
|  | Xiaoyong Yang and Lei Liu  |            |
| <b>Part II Paleoproterozoic Rifting-Subduction-Collision</b> |  |            |
| <b>7</b>   | <b>Paleoproterozoic Gneissic Granites in the Liaoji Mobile Belt, North China Craton: Implications for Tectonic Setting. . . . .</b>  | <b>155</b> |
|  | Mingchun Yang, Bin Chen, and Cong Yan  |            |
| <b>8</b>   | <b>Genetic Mechanism and Metamorphic Evolution of Khondalite Series Within the Paleoproterozoic Mobile Belts, North China Craton . . . . .</b>                                   | <b>181</b> |
|  | Fu-Lai Liu, Ping-Hua Liu, and Jia Cai  |            |
| <b>9</b>   | <b>Paleoproterozoic Copper System in the Zhongtiaoshan Region, Southern Margin of the North China Craton: Ore Geology, Fluid Inclusion, and Isotopic Investigation . . . . .</b> | <b>229</b> |
|  | Yuhang Jiang, Yan Zhao, and Hecai Niu  |            |
| <b>10</b>  | <b>The Paleoproterozoic Continental Evolution in the Southern North China Craton: Constrains from Magmatism and Sedimentation . . . .</b>  | <b>251</b> |
|  | Yanyan Zhou, Qianying Sun, Taiping Zhao, and Chunrong Diwu   |            |

### Part III Great Oxidation Event

- 11 **The Great Oxidation Event and Its Records in North China Craton . . . . .** 281  
Yanjing Chen and Haoshu Tang
- 12 **Early Paleoproterozoic Metallogenic Explosion in North China Craton . . . .** 305  
Haoshu Tang, Yanjing Chen, Kaiyue Li, Weiyu Chen, Xiaoqing Zhu,  
Kunyue Ling, and Xiaohui Sun
- 13 **A Genetic Link Between Paleoproterozoic Yuanjiacun BIF  
and the Great Oxidation Event in North China Craton . . . . .** 329  
Changle Wang and Lianchang Zhang

### Part IV Meso-Neoproterozoic Multiple Rifting and Metallogeny

- 14 **Magmatic Records of the Late Paleoproterozoic to Neoproterozoic  
Extensional and Rifting Events in the North China Craton:  
A Preliminary Review . . . . .** 359  
Shuan-Hong Zhang and Yue Zhao
- 15 **Meso-Neoproterozoic Stratigraphic and Tectonic Framework  
of the North China Craton . . . . .** 393  
Jianmin Hu, Zhenhong Li, Wangbin Gong, Guohui Hu, and Xiaopeng Dong
- 16 **Petrogenesis and Tectonic Significance of the Late Paleoproterozoic  
to Early Mesoproterozoic (~1.80–1.53 Ga) A-Type Granites  
in the Southern Margin of the North China Craton . . . . .** 423  
Taiping Zhao and Xiaoqin Deng
- 17 **Insights into the Ore Genesis of the Giant Bayan Obo REE-Nb-Fe  
Deposit and the Mesoproterozoic Rifting Events in the Northern  
North China Craton . . . . .** 435  
Kui-Feng Yang, Hong-Rui Fan, Fang-Fang Hu, Shuang Liu, and Kai-Yi Wang

### Part V Phanerozoic Reworking of the North China Craton and Metallogeny

- 18 **Paleozoic to Early Mesozoic Tectonics of North China Craton . . . . .** 453  
Yue Zhao, Mingguo Zhai, and Shuan-Hong Zhang
- 19 **Two-Stage Extensional Pattern in the North China–Mongolian Tract  
During Late Mesozoic: Insights from the Spatial and Temporal  
Distribution of Magmatic Domes and Metamorphic Core Complexes . . . . .** 467  
Xiaohui Zhang and Lingling Yuan
- 20 **Mesozoic Mo Deposits in Northern North China Craton . . . . .** 487  
Yanjing Chen
- 21 **Late Mesozoic Gold Mineralization in the North China Craton . . . . .** 511  
Hong-Rui Fan, Mingguo Zhai, Kui-Feng Yang, and Fang-Fang Hu
- 22 **Lower Crustal Accretion and Reworking Beneath  
the North China Craton: Evidences from Granulite Xenoliths . . . . .** 527  
Jianping Zheng, Ying Wei, Xianquan Ping, Huayun Tang, Yuping Su,  
Yilong Li, Zhiyong Li, and Bing Xia

Main Tectonic Events and Metallogeny of the North  
China Craton

Zhai, M.; Zhao, Y.; Zhao, T. (Eds.)

2016, VII, 540 p. 262 illus., 235 illus. in color.,

Hardcover

ISBN: 978-981-10-1063-7