

INFORMATION ON DOCTORAL THESIS

1. Full name: Nguyen Cong Thuan
2. Sex: male
3. Date of birth: 28/01/1980
4. Place of birth: Hung Yen.
5. Admission decision number: 3614/QĐ-SĐH November 22nd 2009 by President of Vietnam National University, Hanoi.
6. Changes in academic process: None
7. Official thesis title: "Middle-Upper Paleozoic stratigraphy at Ha Lang area in relation to structural geology and mangan minerals"
8. Major: Paleontology and Stratigraphy
9. Code: 62.44.55.10.
10. Supervisors: Assoc.Prof. Dr. Ta Hoa Phuong

Assoc.Prof. Dr. Nguyen Van Vuong

11. Summary of new findings of the thesis:

The study area, Ha Lang, contains a very complex structural geology and has a great potential on mangan minerals. Base on analysis of structural elements, orders of Paleozoic stratigraphy and stratigraphic units containing mangan minerals were clarified. In this thesis, environmental conditions of Devonian formations were also generally established. New findings of the thesis are presented as followed:

1. Constructed scientific base for establishing a new formation: the Na Dang formation.
2. Proved sediement of the Ban Cong formation was formed in Givetian and this formation locates in between the Na Quan formation and Na Dang formation.
3. Proved the lowest part of the Toc Tat formation was formed in Frasnian.
4. Established 3 paleogeographic-facies sketch maps coresponding to 3 depositing periods in Devonian.
5. Mangan minerals were formed in 3 periods: Frasnian, Famennian and Tournaisian.

12. Practical applicability, if any:

Results of the thesis may be applied in the following fields:

- Stratigraphic sketch maps can be used for establishing structural-tectonic map of the study area. New findings of the thesis on Paleozoic stratigraphy will contribute to orient manganese searching in this area.
- Using structural and tectonic analysis in stratigraphical researches is very useful for reconstructing exact stratigraphic order and the sedimentary evolution of the study area in middle-late Paleozoic.
- Paleogeographic-facies sketch maps were also useful for defining environmental conditions of sedimentary formations and related minerals.

13. Further research directions, if any:

More detail researches should be implemented for constructing Paleogeographic-facies maps of different areas.

14. Thesis-related publications:

1. Nguyen Cong Thuan, Ta Hoa Phuong (2002), "New data on formation time of the lowest part of the Toc Tat formation in Ha Lang area (Cao Bang)", VNU Journal of Science Vietnam National University Hanoi, pp. 87-91.
2. Ta Hoa Phuong, Nguyen Cong Thuan (2004), "Paleoecological features and conodonts and tentaculites distribution in D₃-C₁ sediment at some areas in Tonkin Gulf", VNU Journal of Science Vietnam National University Hanoi XX (3), pp.51-56.
3. Ta Hoa Phuong, Nguyen Thi Thuy, Nguyen Cong Thuan, Doan Nhat Truong (2004), "About Frasnian / Famennian (upper Devonian) at the Northeastern part of the Tonkin", Journal of Earth Sciences Vol. 26 (3), pp.216-221.
4. Nguyen Cong Thuan, Do Van Thanh, Nguyen Van Tu, Nguyen Van Thuat (2004), "Characteristics of stratigraphic units containing manganese minerals at the Trung Khanh area (Cao Bang)", Vietnam Geology and Minerals Department of Geology and Minerals of Vietnam Northern Geologic mapping Division, pp. 28-40.
5. Nguyen Cong Thuan, Nguyen Van Tu, Nguyen Van Thuat, Ta Hoa Phuong (2004), "Proposed on Devonian-lower Carboniferous stratigraphic diagram and at the Trung Khanh area, Cao Bang", Vietnam Geology and Minerals Department of Geology and Minerals of Vietnam Northern Geologic mapping Division, pp. 46-52.
6. Tran Thanh Hai, Nguyen Van Can, Nguyen Cong Thuan (2004), "Analyzing of detail structures in multideformation area and their significance in establishing the geological development of the Northeastern of Cao Bang, North of Vietnam", Vietnam Geology and Minerals Northern Geologic mapping Division, pp. 99-116.

7. Nguyen Cong Thuan (2009), "Devonian stratigraphy of the Trung Khanh - Cao Bang maps", Vietnam Geology and Mineral Northern Geologic mapping Division, pp. 3-21.

8. Nguyen Cong Thuan, Nguyen Van Tu, Nguyen Van Thuat, Ta Hoa Phuong, Doan Nhat Truong (2011), "Proposal of Devon-Lower Carboniferous stratigraphical schema for Trung Khanh area (Cao Bang province)", VNU Journal of Science Vietnam National University ISSN 0866-8612 (1s) volume 27, pp. 11-18.