



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-7010

Mail Stop 7010

August 23, 2006

Mr. Jess Jankowski  
Nanophase Technologies Corporation  
1319 Marquette Drive  
Romeoville, Illinois 60446

**RE: Nanophase Technologies Corporation  
Form 10-K for the fiscal year ended December 31, 2005  
Filed March 15, 2006  
File # 0-22333**

Dear Mr. Jankowski:

We have reviewed your response letter dated June 15, 2006 and have the following additional comments. If you disagree, we will consider your explanation as to why our comment is inapplicable. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Form 10-K for the fiscal year ended December 31, 2005

Statement of Stockholders' Equity, page F-7

1. We reviewed your response to prior comment three. Please confirm that there is not a liquidated damages clause in your registration rights arrangement as addressed in EITF 05-4. In addition, please revise future filings to disclose your conclusion that there are no settlement alternatives available to Altana if the shares they purchased are not registered and to summarize your conclusion regarding the classification of these shares in permanent equity.

Note 7. Pledged Assets and Long-Term Debt, page F-17

2. We reviewed your response to prior comment five. However, it is still unclear to us how you determined the value of the additional rights and privileges given to BYK Chemie. It appears to us that this calculation may need to be performed

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independently from your calculation of the discount on the note that resulted because the interest rate you received was below fair value.

Note 15. Significant Customers and Contingencies, page F-23

3. We reviewed your response to prior comment six. However, it is still unclear to us how you determined that the reduction in the minimum purchase requirements for 2005 and the two year contract extension had no value. Please advise or demonstrate that recording the entire amount as revenue in 2004 did not materially impact your financial statements.

Note 18. Administrative Actions, page F-25

4. We reviewed your response to prior comment eight. Please revise future filings to clarify that you believe a material loss related to this matter is remote.

\* \* \* \*

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested supplemental information. Detailed response letters greatly facilitate our review. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

If you have any questions regarding these comments, please direct them to Tricia Armelin, Staff Accountant, at (202) 551-3747, Anne McConnell, Senior Accountant, at (202) 551-3709 or, in their absence, to the undersigned at (202) 551-3768.

Sincerely,

John Cash  
Accounting Branch Chief