

Introduction to Presentation and Submission

AI Hub -Academy and Research (5)

GEC Academy

Jiayi Zhu

Last Lecture

- Paper outline
- Writing strategies for each part

Today

- Questions
- Presentation
- Submission Procedure

- **Different kinds of Academic Materials**
 - **Transactions**
 - 学会议事录，如IEEE Transactions on Aerospace and Electronic Systems
 - 文章对于相关背景的介绍比较少，相关理论也会少一点
 - **Journal**
 - 期刊，如IEEE/OSA Journal of Display Technology
 - 文章对相关背景的介绍会多一些，而且理论深度比较深
 - **Magazine**
 - 杂志，没有理论推导和高深的技术
 - 但是也有很多杂志的文章都是大牛写的，是一种方向性的指导
 - **Letter**
 - 快讯，用于介绍最新的研究成果，这种文章并不多

- # Different kinds of Paper

- **Article & Paper**

- Paper指还没有提交或发表的论文 (working paper)
- Article指已经发表的论文

- **Thesis & Dissertation**

- Thesis指本科和硕士学位论文
- Dissertation指博士学位论文

- **Conference Proceeding & Conference Paper**

- Conference Paper指已发表的会议论文
- Conference Proceeding指没有发表的论文
- 引用Conference Proceeding不需要标记页码 (pp. xx-xx)
而引用Conference Paper就需要标记

• Title Page

Orthogonal self-assembly of an organoplatinum(II) metallacycle and cucurbit[8]uril that delivers curcumin to cancer cells

Sougata Datta^a, Santosh K. Misra^{a,c,d,e}, Manik Lal Saha^a, Nabajit Lahiri^a, Janis Louie^{a,1}, Dipanjan Pan^{b,c,d,e,1}, and Peter J. Stang^{a,1}

^aDepartment of Chemistry, University of Utah, Salt Lake City, UT 84112; ^bDepartment of Bioengineering, University of Illinois at Urbana-Champaign, Urbana, IL 61801; ^cMills Breast Cancer Institute, Carle Foundation Hospital, Urbana, IL 61801; ^dDepartment of Materials Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, IL 61801; and ^eBeckman Institute, University of Illinois at Urbana-Champaign, Urbana, IL 61801

Contributed by Peter J. Stang, June 15, 2018 (sent for review March 5, 2018; reviewed by Jacqueline K. Barton and Abana Schepartz)

Curcumin (Cur) is a naturally occurring anticancer drug isolated from the *Curcuma longa* plant. It is known to exhibit anticancer properties via inhibiting the STAT3 phosphorylation process. However, its poor water solubility and low bioavailability impede its clinical application. Herein, we used organoplatinum(II) – pyridyl coordination-driven self-assembly and a cucurbit[8]uril (CB[8])-mediated heteroternary host-guest complex formation in concert to produce an effective delivery system that transports Cur into the cancer cells. Specifically, a heptagon 1, containing hydrophilic methyl viologen (MV) units and 2,4,5-tris(4-(2-methoxyethoxy)phenyl)ethoxy(benzoyl) groups alternatively at the vertices, has been synthesized and characterized by several spectroscopic techniques. The MV units of 1 underwent noncovalent complexation with CB[8] to yield a host-guest complex 4. Cur can be encapsulated in 4, via a 1:1:1 heteroternary complex formation, resulting in a water-soluble host-guest complex 5. The host-guest complex 5 exhibited ca. 100-fold improved IC₅₀ values relative to free Cur against human melanoma (C32), melanoma of rodents (B16/F10), and hormone-responsive (MCF-7) and triple-negative (MDA-MB231) breast cancer cells. Moreover, strong synergism of Cur with 1 and 4 with combinational indexes of <1 across all of the cell lines were observed. An induced apoptosis with fragmented DNA pattern and inhibited expression of phospho-STAT3 supported the improved therapeutic potential of Cur in heteroternary complex 5.

supramolecular coordination complex | orthogonal self-assembly | metallacycle | cancer | drug delivery

Coordination-driven self-assembly via metal-ligand interactions is an efficient strategy for preparing discrete supramolecular coordination complexes (SCCs) with predefined shapes and sizes (1–6). The well-defined core structures of SCCs further facilitate the introduction of functional groups on the interior and/or exterior vertices of these frameworks, leading to the formation of functional systems useful in selective encapsulation (7), sensing (8), optical and electronic materials (9), drug delivery (10), and so on (11–14). The orthogonality of metal-ligand coordination with other noncovalent interactions, such as hydrogen bonding, π - π stacking, van der Waals forces, and host-guest complexation, allows the facile construction of SCC-based supramolecular polymer networks (SPNs) with self-healing properties and stimuli responsiveness (15). Herein, the majority of the known SPNs have been prepared in organic medium, due to the intrinsic hydrophobicity of SCCs, limiting their biomedical applications (15).

Cucurbit[8]uril (CB[8]) (n = 5–8, 10, and 14) are a family of barrel-shaped macrocyclic molecular hosts composed of repeating glycol units (16). A variety of neutral or positively charged guests can be encapsulated inside their cavity with high equilibrium association constants. The host-guest complexations in water are driven by a combination of ion-dipole, hydrophobic, and hydrogen-bonding interactions between the unicyclic C₆₀ groups of CB[8] and the guest molecules. Among the C₆₀ groups

homologs, CB[8] has a unique capability to accommodate two hetero homo guests in its cavity, leading to the formation of sophisticated materials (17–21). For example, Scherman and coworkers (22) have combined microfluidic techniques with cucurbit[8]uril-mediated interfacial host-guest chemistry and prepared monodisperse supermolecular microcapsules that are useful in sensing and drug delivery.

Despite the recent advances in cancer research, how to improve the water solubility of hydrophobic drugs such as paclitaxel, curcumin (Cur), camptothecin, tamoxifen, and others is still a formidable challenge (23–27). Various nanocarriers including nanotransistors (28–31), conjugates (32–34), hydrogels (35), carbon nanomaterials (36), and so on have been developed to overcome this problem. Likewise, the solubility, stability, and bioavailability of anticancer drugs have been significantly improved in physiological environments via host-guest complexation (37–40). Lippert and coworkers (41) reported a hexameric Pt(II) cage as a drug delivery vehicle to deliver a Pt(II) prodrug to cancer cells. Likewise, a Fujita-type Pt(II)-organic polyhedron capped with CB[8] units, via the host-guest complexation with its methyl viologen (MV) functionalized, has been used to deliver a water-soluble anticancer drug, doxorubicin, to human cervical cancer (HeLa) cells

Significance

Despite decades of research, the development of efficient strategies that can effectively deliver poorly water-soluble anticancer drugs remains a challenge. Hierarchical self-assembly strategy allows combining multiple therapeutic agents to produce a synergistic effect, thus enhancing the therapeutic efficacy. Herein we describe a hierarchical approach to solubilize a hydrophobic anticancer drug, curcumin in water via a combination of coordination-driven self-assembly and host-guest interactions. The water-soluble orthogonal self-assembly constructed by a heptagonal Pt(II) metallacycle, cucurbit[8]uril, and curcumin exhibited enhanced anticancer activity against melanoma and breast cancer cells compared with the corresponding precursors. This paper provides a platform for efficient delivery of hydrophobic anticancer drugs to cancer cells by the judicious implementation of multiple orthogonal interactions in a single process.

Author contributions: S.D., S.K.M., D.P., and P.J.S. designed research; S.D., S.K.M., M.L.S., and N.L. performed research; S.D. contributed new reagents/analytic tools; S.D., S.K.M., M.L.S., D.P., and P.J.S. analyzed data; and S.D., S.K.M., M.L.S., N.L., J.L., D.P., and P.J.S. wrote the paper.

Reviewers: L.C.B., California Institute of Technology and A.S., Yale University.

The authors declare no conflict of interest.

Published under the PNAS license.

¹To whom correspondence may be addressed. Email: louie@chem.utah.edu, dipanjan@illinois.edu, or stang@chem.utah.edu.

This article contains supporting information online at www.pnas.org/lookup/suppl/doi:10.1073/pnas.1808001115/-/DCSupplemental.

www.pnas.org/cgi/doi/10.1073/pnas.1808001115

Sougata Datta^a, Santosh K. Misra^{b,c,d,e}, Manik Lal Saha^a, Nabajit Lahiri^a, Janis Louie^{a,1}, Dipanjan Pan^{b,c,d,e,1}, and Peter J. Stang^{a,1}

^aDepartment of Chemistry, University of Utah, Salt Lake City, UT 84112; ^bDepartment of Bioengineering, University of Illinois at Urbana-Champaign, Urbana, IL 61801; ^cMills Breast Cancer Institute, Carle Foundation Hospital, Urbana, IL 61801; ^dDepartment of Materials Science and Engineering, University of Illinois at Urbana-Champaign, Urbana, IL 61801; and ^eBeckman Institute, University of Illinois at Urbana-Champaign, Urbana, IL 61801

Author contributions: S.D., S.K.M., D.P., and P.J.S. designed research; S.D., S.K.M., M.L.S., and N.L. performed research; S.D. contributed new reagents/analytic tools; S.D., S.K.M., M.L.S., D.P., and P.J.S. analyzed data; and S.D., S.K.M., M.L.S., N.L., J.L., D.P., and P.J.S. wrote the paper.

Reviewers: J.K.B., California Institute of Technology; and A.S., Yale University.

The authors declare no conflict of interest.

Published under the PNAS license.

¹To whom correspondence may be addressed. Email: louie@chem.utah.edu, dipanjan@illinois.edu, or stang@chem.utah.edu.

- Word & LaTeX

- ➔ Purpose and Scope

- Article types
- Editorial review process

- ➔ Editorial and Journal Policies

- Direct Submission
- Contributed Submission

- ➔ Conflict of Interest

- PNAS policy
- Author responsibility

- ➔ Submission Procedures

- Initial submission
- Revised and Contributed submission

- ➔ Manuscript Format

- Manuscript order
- Text

- ➔ For Reviewers

- Peer reviewer instructions
- Ethical responsibilities of reviewers

- ➔ LaTeX

- LaTeX files
- Submitting LaTeX files

- ➔ Production Process

- Page proofs
- Alteration fees

- ➔ Publication Fees

- Article fees
- Payment options

- ➔ Author FAQ

- Submission process
- Permissions

- ➔ Licenses for PNAS articles

- License types
- Author rights

- ➔ Call for Papers

- Physical sciences
- Social sciences

• Framework of Academic Publications

Robustness Check for the CAPM with AEPD Errors in Sovereign CDS Market

Li, Liuling and Zhu, Jiayi

June 14, 2013

Abstract

This paper checks the robustness of the Capital Asset Pricing Model with error terms distributed as Asymmetric Exponential Power Distribution (i.e., CAPM-AEPD of Jin(2011)). Method of Maximum Likelihood Estimation is used to estimate this model. Sovereign CDSs from UK, France, German and Italy are analyzed. Sample period is from Aug. 5, 2011 to Aug. 5, 2012. Empirical results show 1) with AEPD errors, CAPM theory of Sharpe(1964), Lintner(1965) and Mossin(1966) is alive in Sovereign CDS market. 2) CAPM-AEPD has better in-sample fit than CAPM-Normal by Akaike Information Criterion (AIC). 3) Our findings are similar to those documented at stock markets such as France, US, China, UK, Singapore and Hongkong.

Keywords: Capital Asset Pricing Model (CAPM), Asymmetric Exponential Power Distribution (AEPD), Credit Default Swap (CDS)



```
\documentclass{article}

\begin{document}

This is the body of the article

\end{document}
```

<http://www.ctex.org/CTeXDownload>

Robustness Check for the CAPM with AEPD Errors in Sovereign CDS Market

Li, Liuling¹ Zhu, Jiayi²

¹Institute of Statistics and Econometrics,
Nankai University,

²Department of Economics,
Nankai University

2013.6.13

Outline

- 1 Motivation
 - The Basic Problems That We Studied
 - Literature Reviews
- 2 Model and Methodology
- 3 Data
- 4 Results
- 5 Summary
- 6 Future Extensions
- 7 Questions and Answers

Researches about CAPM (1)

Author(Year)	Model&Methodology	Country	Sample Period
Panel A: Written in English			
Markowitz(1952)	Mean-Variance Model	-	-
Sharpe (1964)	CAPM	-	-
Merton (1973)	ICAPM	-	-
Black(1976)	wealth CAPM	-	-
Lucas (1978)	CCAPM	-	-
Grossman et.al. (1981)	CCAPM	US	1890-1979
Gultekin et.al. (1985)	APT, CAPM	US	1960-1979
Fama et. al. (1993)	3-factor model	US	1962-1989
Groenwolda et.al(1999)	CAPM	Australia	1979:12-1994:2
Gonzalez(2001)	CAPM	Venezuela	1992:4-1998:8
Bartholdv et.al.(2005)	CAPM, FF	US	1970-1996

01

Title and Author (1 side)

- *Good morning. It is my honor to give you this presentation.*
- *I am ..., studied in/graduated from ... My supervisor is*
- *Today our topic is*

02

Outline (1 slide)

Our discussion can be divided into 3 parts.

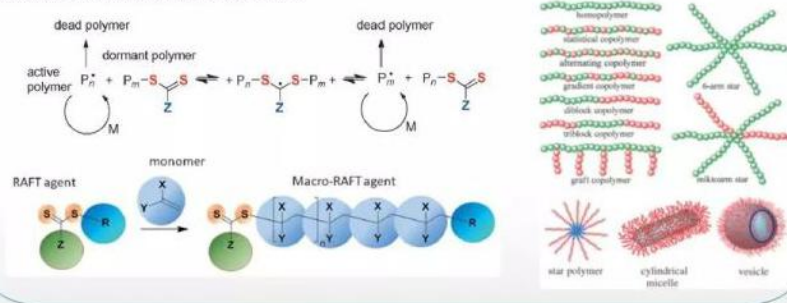
- *First, we will discuss why we do this research.*
- *Second, how we realize our purpose.*
- *Last, we will make a summary and comments*

03

Background (2-3 slides)

- *What previous research have done?*
- *What previous research have not done?*
- *What we should do? Why it is important?*

可逆加成断裂链转移（RAFT）是可控活性聚合中重要且广泛适用的方法之一。RAFT活性聚合具有广泛的单体适用性，可以设计、合成多种结构和功能的聚合物及功能化纳米微球等。



04

Methodology (1-2 slides)

- *For our research, we mainly apply ...method, which is a common approach for ...*
- *But, the difference of our research is*
- *The mainly logic behind our method is ...*

More tables More graphs Less words

05

Empirical Result (2-3 slides)

- *Based on method, we apply..data and analyze ...*
- *2-3 important conclusions*
- *Whether results suit to your prediction*

Empirical Results (1)–Descriptive Statistics

	Mean	Med.	St.De.	Ske.	Kur.	P
G7index	-.0017	-.0015	.0317	-.3318	6.0456	0
UK	-.0020	-.0011	.0508	-7.0587	88.4631	0
France	0	.0002	.0414	-.2131	4.6480	0
German	-.0008	0	.0384	-.1722	5.4542	0
Italy	.0017	.0010	.0375	-.4443	4.6027	0

Empirical Results (4)–Structure Analysis

- ① In CAPM-AEPD, the β_2 values of UK, France and German are all smaller than 1, which indicates that these CDSs are less sensitive to market than Italy.
- ② These results are the same as those estimated from CAPM-Normal.

Empirical results show

- 1 With non-normal error assumption, the Capital Asset Pricing Model (CAPM) in Sharpe (1964), Lintner (1965) and Mossin (1966) is still alive for Sovereign CDS market.
- 2 CAPM-AEPD has better in-sample fit than CAPM-Normal by Akaike Information Criterion (AIC), which is the same as those for US and China stock market found in Jin (2011).

Motivation
Model and Methodology
Data
Results
Summary
Future Extensions
Questions and Answers

Thanks!

Motivation
Model and Methodology
Data
Results
Summary
Future Extensions
Questions and Answers

Any questions?

06

Conclusion (1 slide)

- *Whether your purpose is realized.*
- *Advantages of research*
- *Disadvantages of research*

07

Acknowledgement (1 slide)

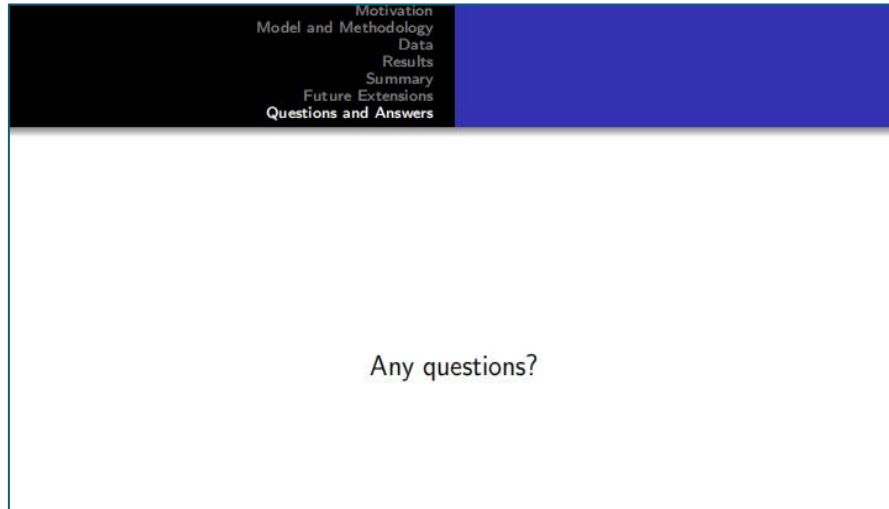
- *That's our research.*
- *Thank you for your listening.*

08

Question or Comments? (Closing slide)

- *Is there any questions?*
- *2-3 questions are enough.*
- *Keep within 5 min.*

- How to Ask and Answer Questions?



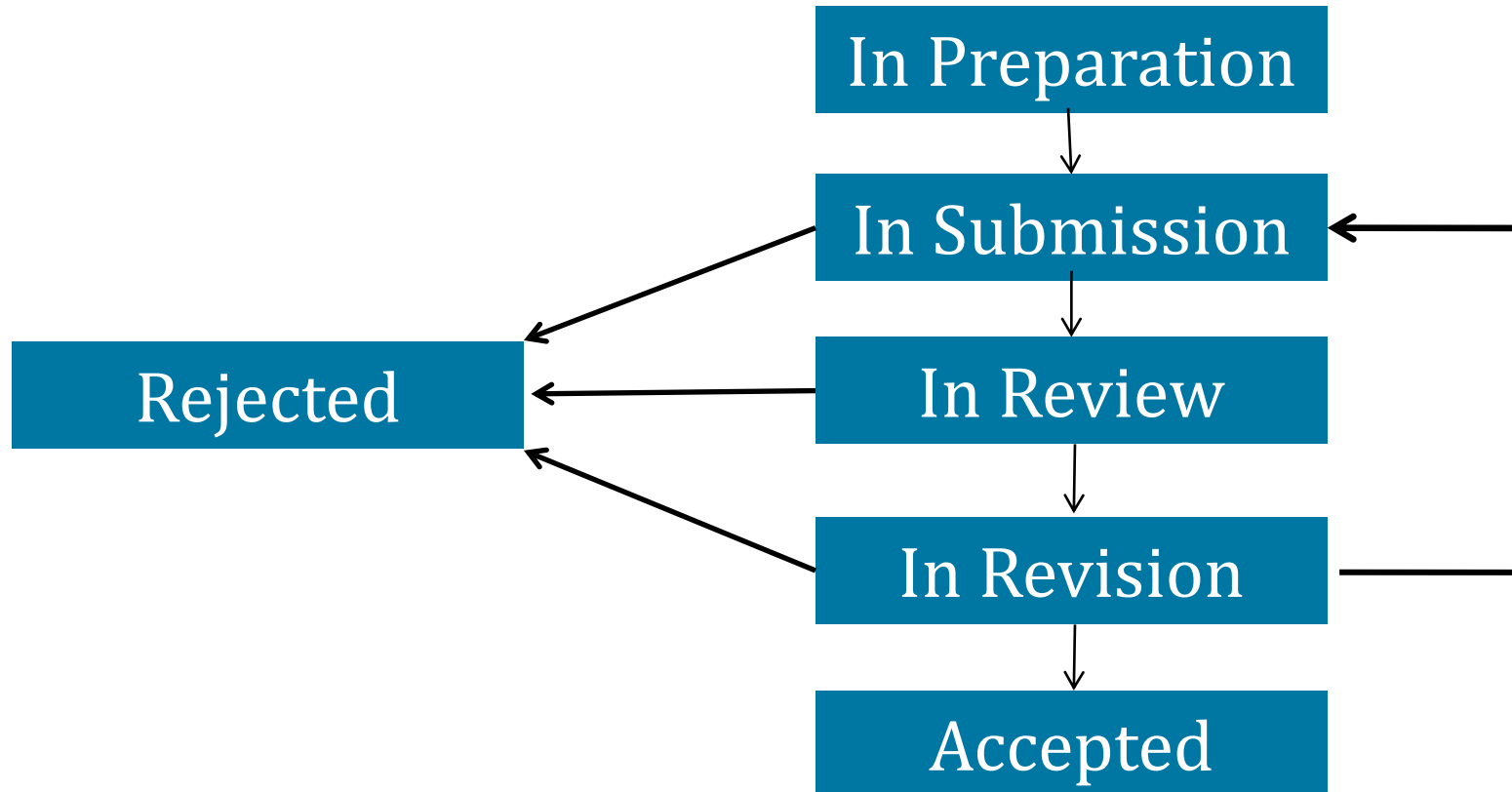
- **How to ask questions?**

- You made an amazing presentation.
- And I have learnt a lot from it.
- But I just wonder

- **How to answer questions?**

- Thank you for your question.
- For this question, I try to...

- Submission Process



• Editorial Board

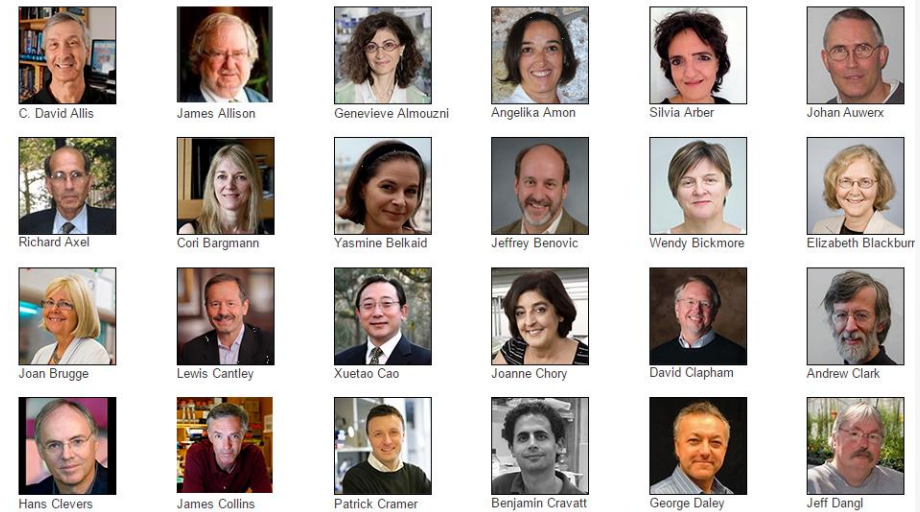
In Submission



The editorial board, or (editorial) advisory board, is a team of experts in the journal's field.

- *Review submitted manuscripts.*
- *Advise on journal policy and scope.*
- *Identify topics for special issues, which they may guest edit.*
- *Attract new authors and submissions.*
- *Act as advisers in the case of complex publishing ethics allegations.*
- *Ideally submit some of their own work for consideration by the journal.*

Editorial Board



All be appointed from key research institutes

At least 70% manuscripts will be rejected during the process!

- Reviewers

In Review

- *Experts of the relative field*
- *Have publications of first author/corresponding author in the recent five years*
- *Usually hold a PhD degree*
- *No competing interests/common interests with the authors (No co-author work/funding in recent 3 years)*
- *Usually there will be 2 or 3 reviewers*

At least 3 months

- Evaluation from Reviewers

In Review

- *Originality/Novelty (Topic Selection)*
 - *Scientific Soundness (Methodology)*
 - *Interest to the Readers (Empirical Analysis)*
 - *Significance (Conclusion)*
 - *Quality of Presentation* →
 - *Overall Merit*
 - *English Level*
- Written
- Oral

- Evaluation from Reviewers

In Review

- *English Level*

- 百度翻译

- *NOUNPLUS: Grammar Check Free Online*

- <https://www.nounplus.net/grammarcheck/>

- *Grammar Check Online*

- <https://www.gingersoftware.com/grammarcheck#.XO9T1vmsd4Z>

- *AutoCrit Online Editing*

- <https://www.autocrit.com/>

• Evaluation from Reviewers

In Review

Overall Recommendation

- *Accept in Present Form*
- *Accept after Minor Revisions*
- *Reconsider after Major Revisions*
- *Reject*
 - 先看期刊再写论文
 - 观察Editorial Board成员
 - 观察发刊量和 IF

Overall Recommendation: Reject

Recommendation

Review Report:

In the manuscript entitled XXXXXXXX, the authors presented the self-assembly process of nanoporous structures observed by STM. Although the authors have done lots of work, I am sorry to say that the manuscript is not qualified for the publication requirements. My reasons are as follows:

Brief Summary

1. Similar results have been reported in *Surface Science* 538 (2003) L451-L459 and the *Journal of Chemical Physics* 134, 124702(2011). In these studies, stilbenoid derivatives studied by STM and the corresponding theoretical models have been reported. Therefore, I'm afraid the manuscript is **lack of novelty**.
2. The illustrations made in this manuscript were **not fully convinced**. Without calculations of theoretical models corresponding to the nanostructures, it is hard to understand the authors' explanations.
3. I guess the authors may have to reconsider some of their explanations. For example, in paragraph 2 of page 2, the authors mentioned that there is a trade-off between adsorption process and the number of molecules in the solution. The former influences the enthalpy while the latter affects the entropy. Since thermodynamic process is complex, **it is inadequate to make an assertion** like that without the support of carefully calculated models. Obviously, the adsorption can also change entropy of the system and the effect cannot be neglected without supporting calculations. Moreover, in the last paragraph of page 8, the authors mentioned the results may be helpful in solving quenching problems. Further discussions are needed there to explain why.
4. The authors must **be careful with the details** of the manuscript. In the second paragraph of page 5, the authors referred to "equation (8) in ref.3". However, I didn't find the equation. Meanwhile, the images presented by STM were not so clear; the resolution needs to be further improved.

Specific Comments

- Respond the Reviewers

In Revision

Xiao Wang, ,
Department of XXXX, ,
XXXX University School of Medicine, ,
Beijing, China ,
Tel: XXXX; Fax: XXXX ,
E-mail address: [XXXX](#) ,
→ → → → → → → → → → → → → → → April 14, 2019, ,

Dear Editor, ,

..... We would like to resubmit the revised manuscript entitled "XXXX" for consideration by XXXX (journal name). We would like to thank the reviewers for thoroughly reviewing our manuscript and making many thoughtful comments. We were very pleased to see that all three reviewers recognized the novelty and potential significance of our work. We have added significant new data, described in detail below, and revised the manuscript to address reviewers' comments. Here are our point-by-point responses: ,

Reviewer #1: ,

Comment 1: ,

"Fig. 1, I think the data.....?" (the question from reviewer) ,

Answer: ,

Thank you for your kindly suggestions. We have used..... (Fig. 1B) (show what you did to answer their questions or directly explain if you don't need to do anything) ,

Comment 2: ,

"....." ,

Answer: ,

Thank you very much for the comments. We have now tested the (Fig.

S3G) ,

Reviewer #2: ,

Comment 1: ,

"....." (the question from reviewer) ,

Answer: ,

Thank you very much for your questions. We have used..... (Fig. 1B) (show what you did to answer their questions or directly explain if you don't need to do anything) ,

Thank you for your consideration of our manuscript. ,

Yours sincerely, ,

Xiao Wang, Ph.D. ,

- Editorial Decision and Revision

- Accept in Present Form*
- Accept after Minor Revisions*
- Reconsider after Major Revisions*
- Reject and Encourage Re-submission*
- Reject*

Dear J. [redacted]

Your revised manuscript entitled "[redacted] structural dynamics of [redacted] translation initiation [redacted] realized using time-resolved cryo-electron microscopy" has

now been seen by our referees, and in light of their advice I am delighted to say that we can in principle offer to publish it. First, however, we would like you to revise your paper to address the points made by the referees, and to make some editorial changes to your paper so that it is as brief as possible and complies with our Guide to Authors

(<https://www.nature.com/nature/for-authors>).

You will find attached four files: annotated versions of the Reporting Summary and Editorial Policy Checklist; a detailed list of statistical reporting issues; and an excel macro. The annotations on the checklists should be corrected before submitting the final versions of these. The list of reporting issues indicates areas where further information is required. The macro is used to estimate length in print (see below). The general formatting guidelines are as follows:

- Copyright



Requesting Permission

Anyone may, without requesting permission, use original figures or tables published in PNAS for **noncommercial and educational use** (i.e., in a review article, in a book that is not for sale), provided that the full journal reference is cited and, for articles published in volumes 90–105 (1993–2008), "Copyright (copyright year) National Academy of Sciences." **Commercial reuse of figures and tables (i.e., in promotional materials, in a textbook for sale) requires permission from PNAS.**

Text and data mining are permitted for noncommercial institutions with an active institutional site license to PNAS for internal noncommercial research purposes. Other requests should be sent to PNASpermissions@nas.edu.

PNAS authors need not obtain permission for the following cases:

1. to use their original figures or tables in their future works;
2. to make copies of their articles for their own personal use, including classroom use, or for the personal use of colleagues, provided those copies are not for sale and are not distributed in a systematic way;
3. to include their articles as part of their dissertations; or
4. to use all or part of their articles in printed compilations of their own works. The full journal reference must be cited and, for articles published in volumes 90–105 (1993–2008), "Copyright (copyright year) National Academy of Sciences."

- ## Good Attitude is Important

 - 研究是有多个答案、甚至没有答案的不适定问题
 - 研究成果在发表的那一刻就可能过时了
 - 拥有无限的自由，但也有无限的责任
 - 必须让自己接受严格的审查
 - 整个职业生涯在很大程度上将由一个数字来衡量
 - 研究是一种生活，而不是工作

- Good Attitude is Important
 - *Find your own Interests/passion*
 - *Do NOT forget your other responsibility (teaching, public service, volunteer work)*
 - *Find a hobby (sports, music, art digestion...)*
 - *Develop other skills (teamwork, managerial skills, language skills, communication...)*
 - *Keep a balanced life*

Thank you for your listening !

Wish you a good academic
journey in AI Hub!