

**OIT International Symposium
on Science & Technology
2022 Summer
Poster Presentation Session**

July 29(Fri) 17:00~19:00 JST

Organized by International Center, Osaka Institute of Technology

Purpose & Intent

This program aims to provide an opportunity for undergraduate students, graduate students, and faculty staff of Osaka Institute of Technology(OIT) and the members of partner universities to get to know each other's universities and to engage in international exchange, which will lead to future exchange programs.

OIT graduate students will give a poster presentation to introduce their research topics in English, and students from overseas partner universities will participate in their presentation session. In addition, the partner universities' students are also welcome to give a presentation. And we can exchange opinions set opportunities for each expertise field exchange and discuss the future of science, technology, and innovation from a global perspective.

Inviting Organization

①Partner Universities accepting as exchange students at OIT in Fall 2022

②Partner Universities that have implemented (participated in) online programs in the past, etc.

How to Participate

(1) Poster Presentation :

- ① OIT graduate students preparing to present at an international conference
- ② Students from Partner Universities who have received this invitation and wish to present a poster (See application guidelines on pages 5-7).

(2) Visit and Q&A Discussion :

Just audience participation is welcome. If you have any questions, please feel free to ask the presenter. Questions may be on topics different from your field of expertise.

- ① People who are close to the presenter and his/her area of expertise
- ② People who are interested in the content of the presentation
- ③ People who want to chat freely with the presenter

Program Schedule (tentative)

Time Schedule	Program	Content	Recital
17:00~17:20	Opening Session	Greetings from the Organizing Committee Participating Universities and Presenters Program Description	
17:30~17:40	Topic①	Introduction to Kansai and Osaka Culture	
17:40~17:55	Poster Session①~⑤ (1st)	Poster Presentation Q&A Discussion	Each presentation will last 3-5 minutes, with the remaining 10 minutes for Q&A and free talk.
18:00~18:15	Poster Session①~⑤ (2nd)	Poster Presentation Q&A Discussion	
18:20~18:35	Poster Session①~⑤ (3rd)	Poster Presentation Q&A Discussion	
18:40~18:55	Poster Session⑥~X (1st)	Poster Presentation Q&A Discussion	
19:00~19:15	Poster Session⑥~X (2nd)	Poster Presentation Q&A Discussion	
19:20~19:25	Poster Session⑥~X (3rd)	Poster Presentation Q&A Discussion	
19:25~19:30	Closing Session	A few words from the participants Announcement from the organizer	

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【Call for Presenters !】

We are looking for **presenters** who will introduce the outline of their research topics in a poster presentation simulating a mock international conference, as well as participants from the general **audience**.

The presenters from the Osaka Institute of Technology (OIT) are master's students who plan to conduct part of their research activities in their study abroad laboratory starting this fall. If you are planning to study at OIT, this is a great opportunity to participate and deepen your research exchange.

Dates : **July 29 (Fri.) ,2022 JST/17 : 00~19:00**
(CEST/10:00~, EEST/11:00~, ICT/ WIB/ 15:00~,MYT/ PST/CST/ULAT/16:00~)

Method : One poster will be shared on-screen in the virtual space "oVice" to introduce its contents and answer questions from the participants.

Please follow the instructions on the next page to present your research in a single MS PPT slide that will be of interest to the layperson.

Each presentation is 3-5 minutes long, with the remaining 10 minutes for Q&A.

Entry : MS Forms (<https://forms.office.com/r/ifpW0ve6jJ>) or **QR** code on the right.



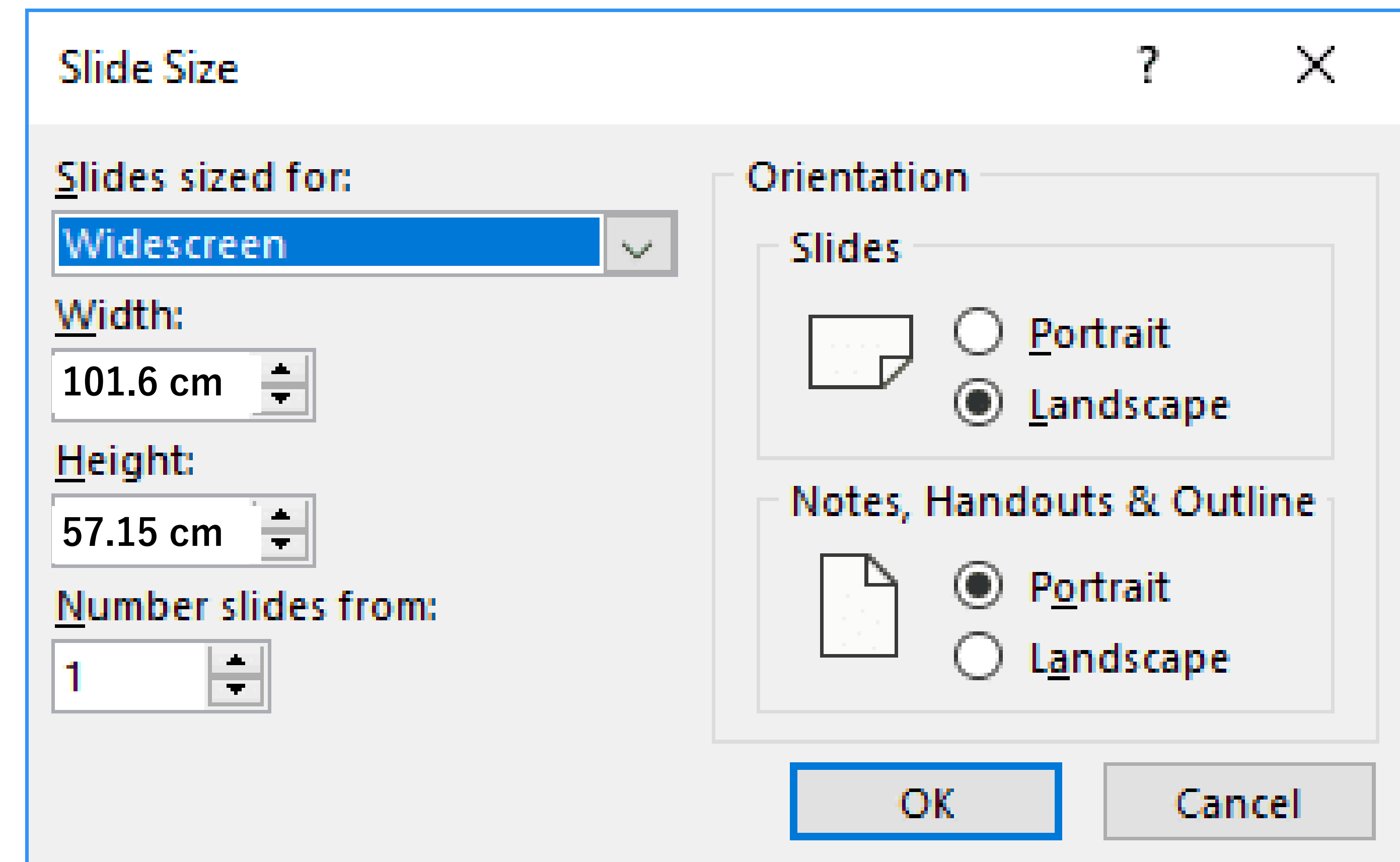
Application **deadline: July 22 (Fri.)**

Poster Creation Instructions

Please use MS PowerPoint to create a poster for your presentation according to the following instructions.

■ Specification

1. Size: 101.6cm x 57.15cm / Aspect ratio(16:9) (default setting) x3
 2. Page: 1
- ※ "Samples" from the next page
 - ※ Share as it is (presenter should not zoom in)



Abstract (48pt)

A bifunctional tethered iridium catalyst containing a 1,2-diphenylethylenediamine framework was synthesized for the first time. The etheral tether chain was easily constructed via the intramolecular oxydefluorination of a perfluorophenylsulfonyl substituent by using a modified 1,2,3,4,5-pentamethylcyclopentadienyl ligand with a hydroxyalkyl chain. The conformationally constrained structure could hamper deactivation pathways in the catalytic hydrogen generation from formic acid, leading to advanced durability and complete conversion. (~100 words)

(20pt)

Please set the page size to "user setting" with 101.6 x 57.15 cm in "File" - "Page Setting"

The font size should be 18-20pt or larger.

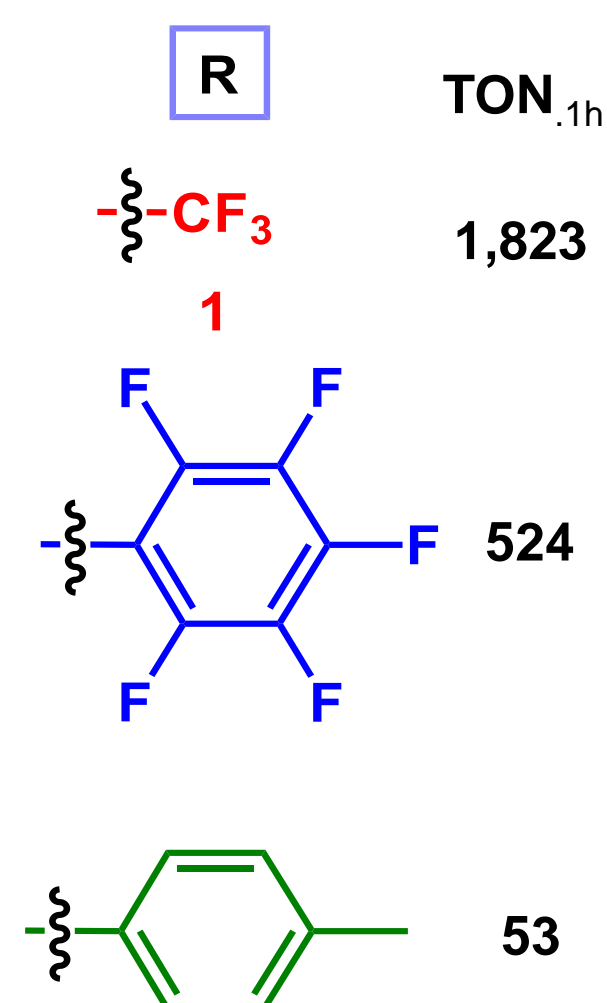
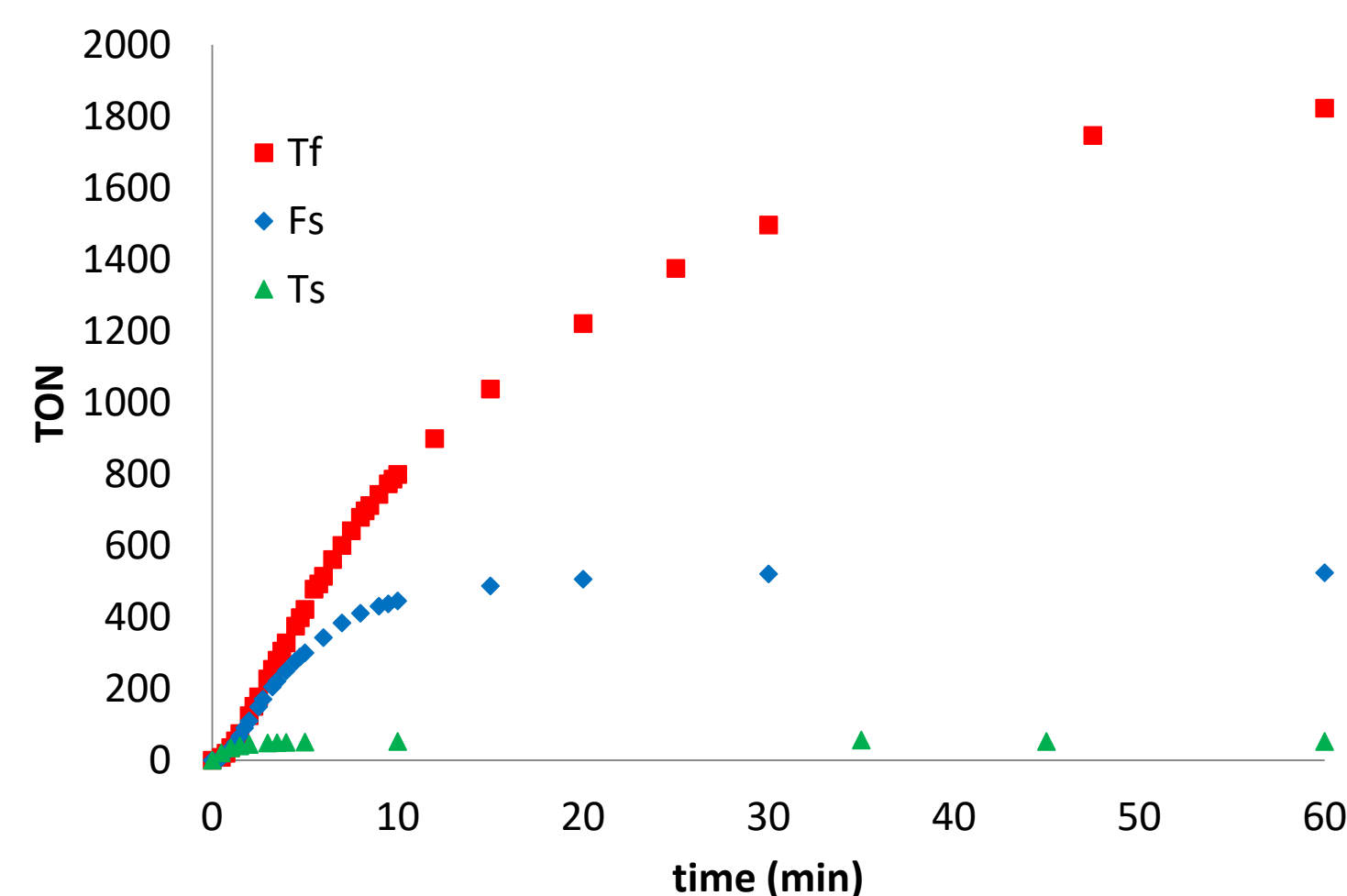
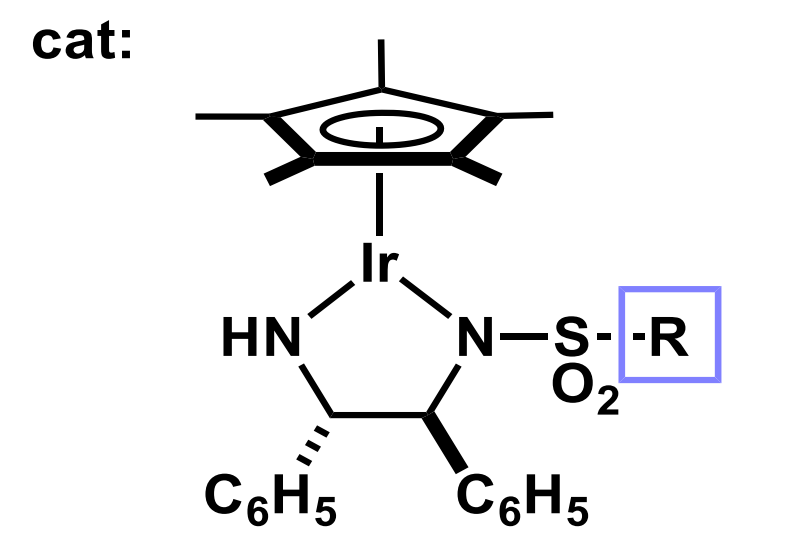
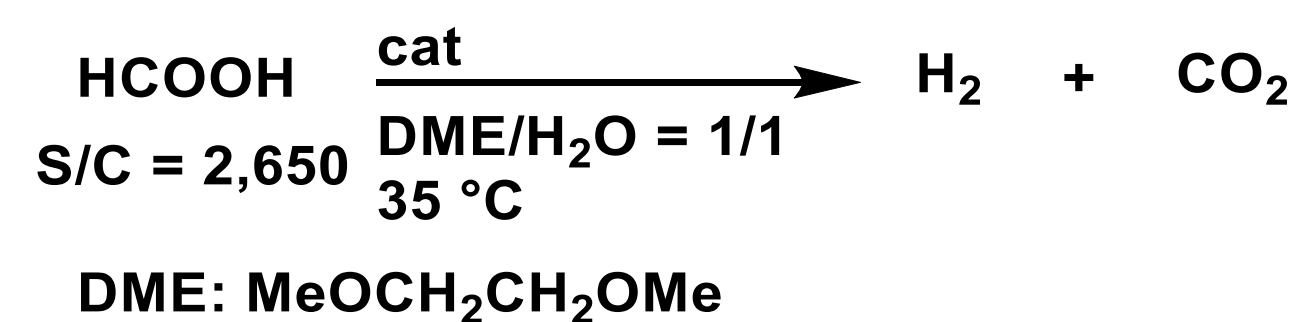
Examples (20 pt)

Examples (18pt)

101.6cm

Backgrounds

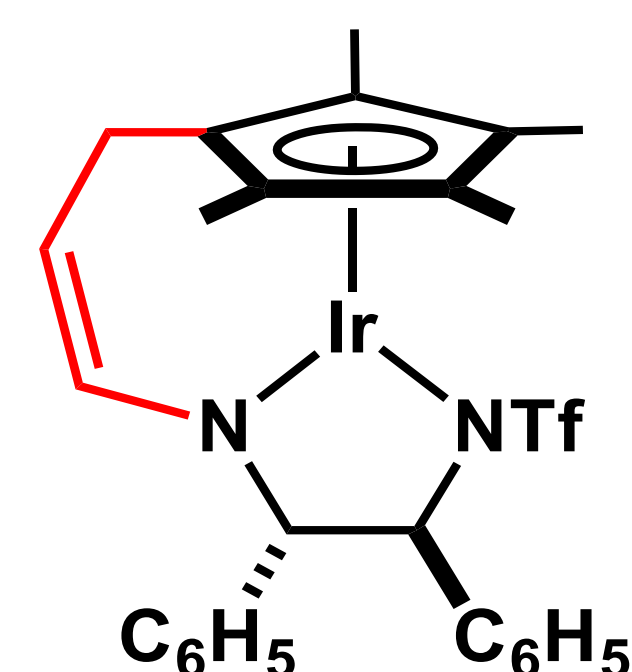
○Dehydrogenation of formic acid with bifunctional catalysts (32pt)



A. Matsunami, Y. Kayaki, T. Ikariya, *Chem. Eur. J.* **2015**, *21*, 13513.

This work

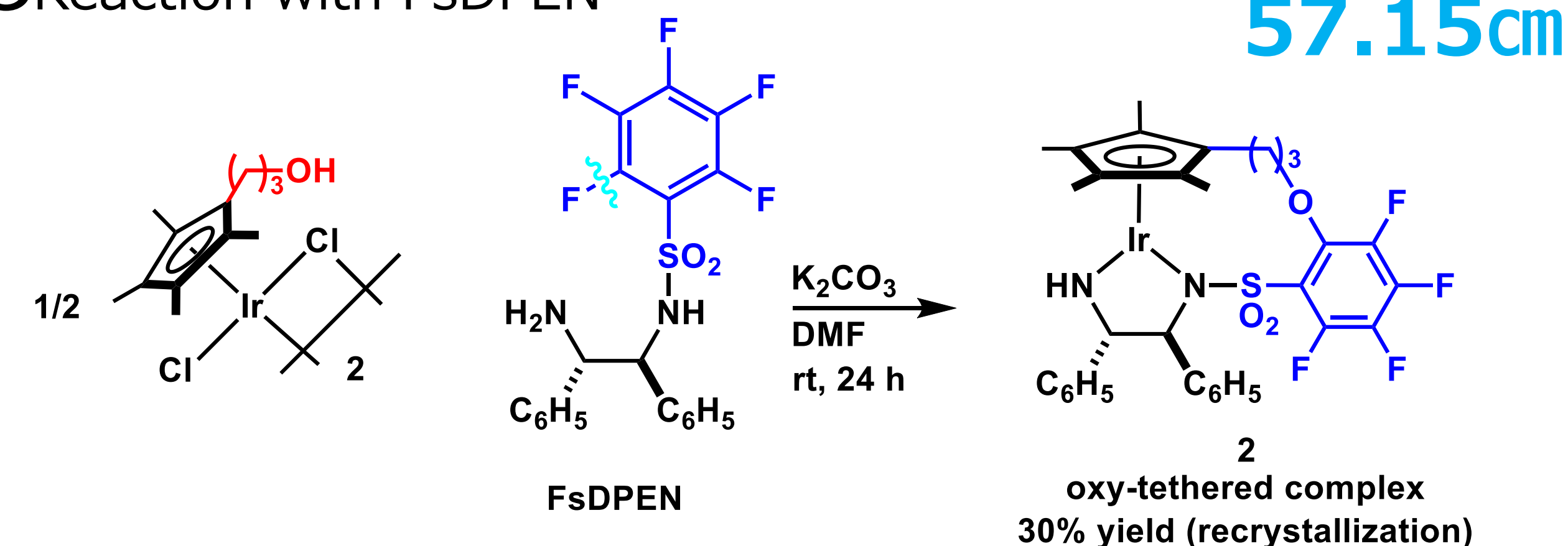
New dehydrogenation catalyst



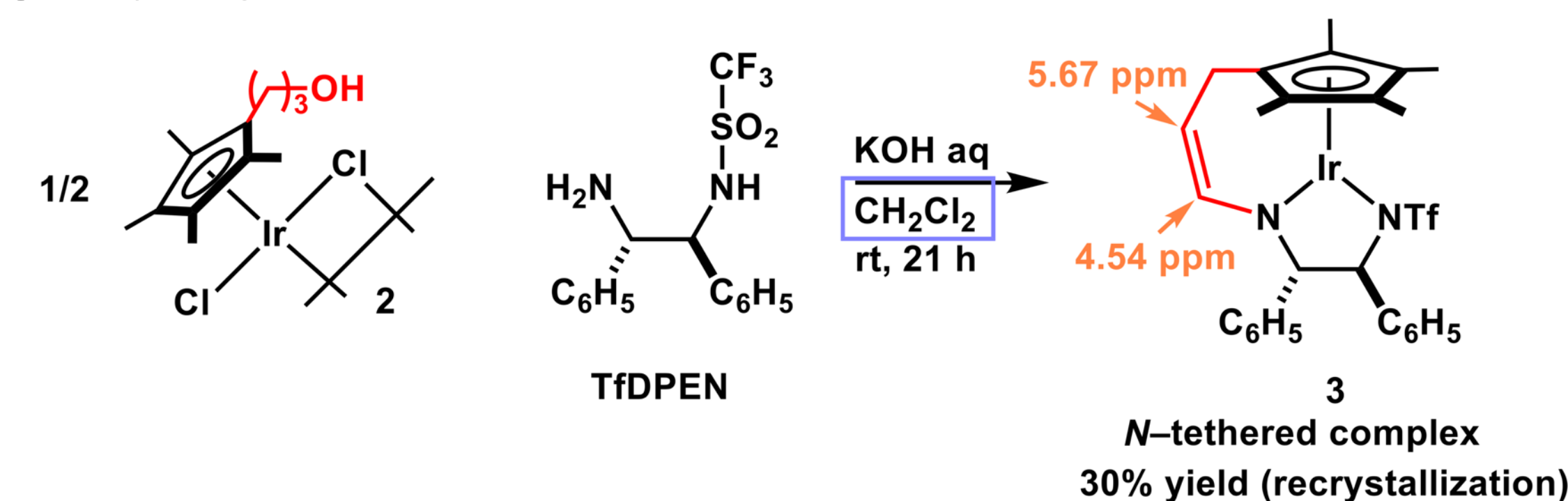
- Concise synthesis
- Efficient H₂ evolution from formic acid
- Robustness (24pt)

Synthesis of tethered complexes

○Reaction with FsDPEN

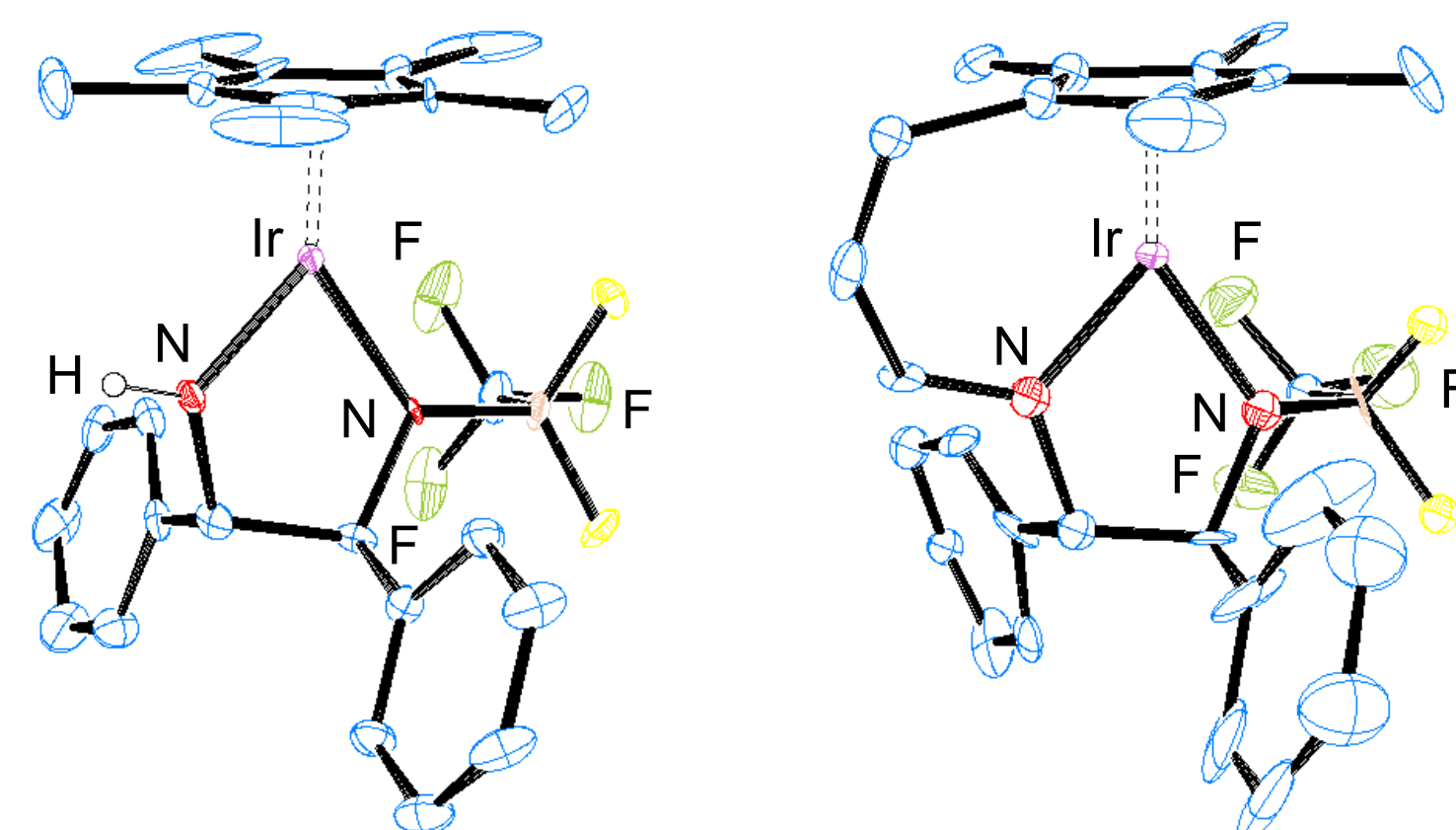


○Reaction with TfDPEN

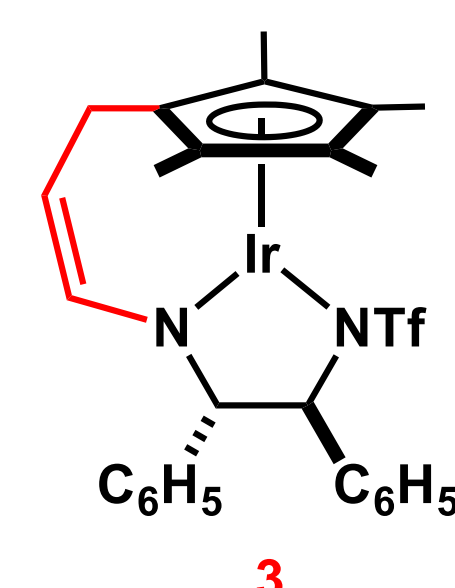
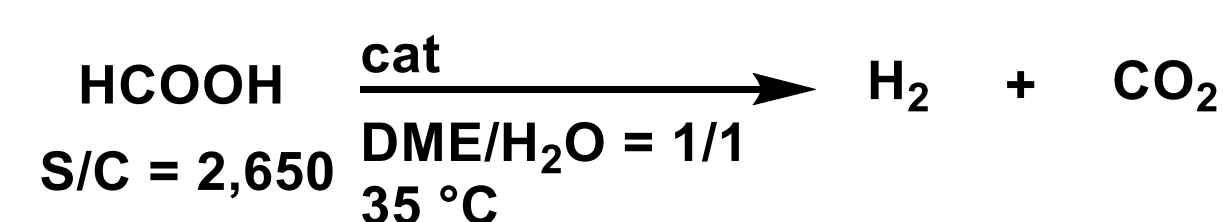


X-ray structures

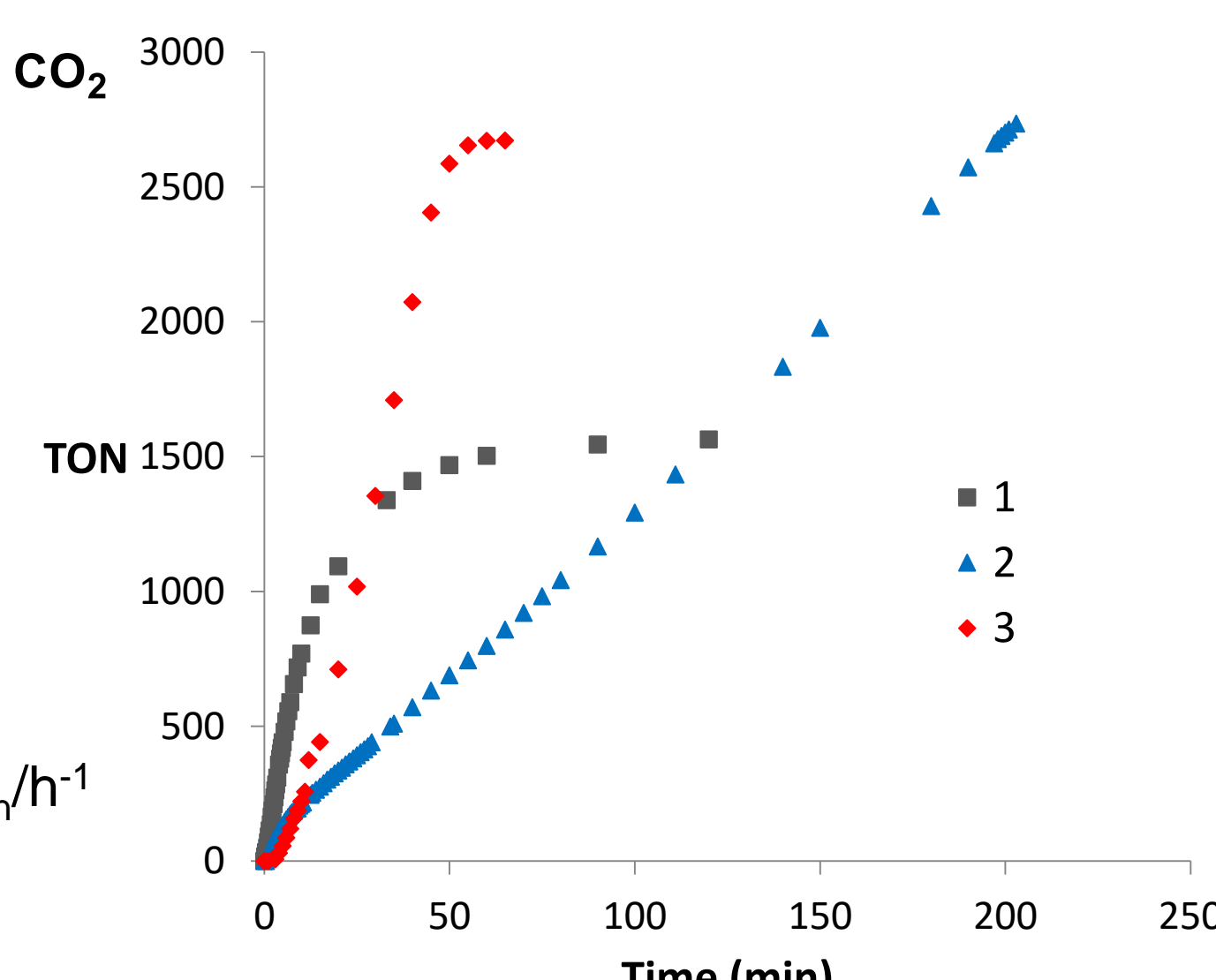
○Comparison of 1 and 3



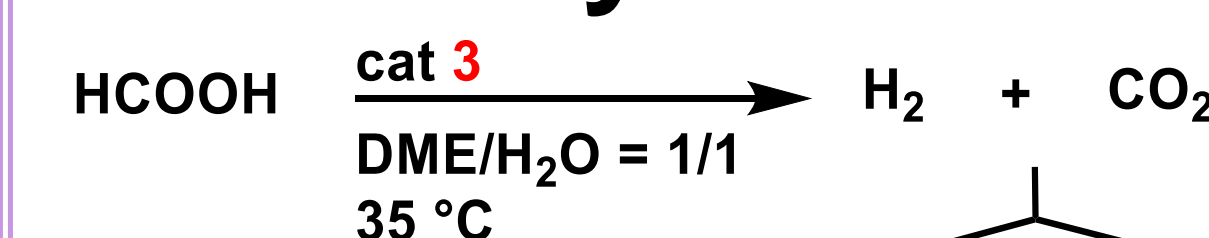
Catalytic H₂ evolution



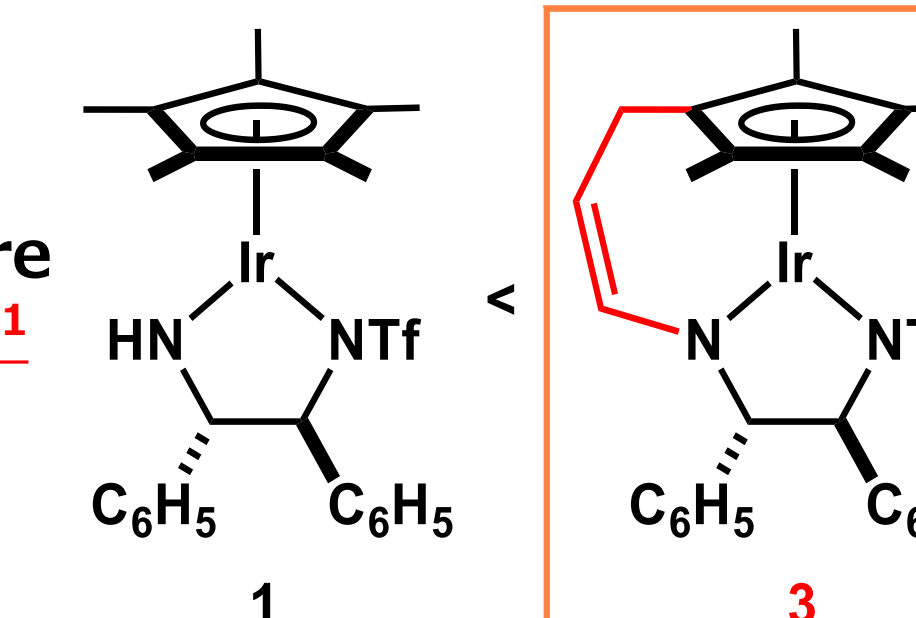
TON_{90 min} 2,650
TOF_{5 min/h⁻¹} 663



Summary



- High activity at ambient temperature
TOF up to 5,000 h⁻¹
- Long-term stability
TON above 80,000



Acknowledgments

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【Contact us】

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