



## 教師指導學生專題製作與論文競賽補助 成果報告

### 一、申請補助計畫基本資料

申請教師	朱見和	核定經費	NT 10,000
單位系所	應用科學系化學組	經費執行情況	<input checked="" type="checkbox"/> 已請購核銷完畢 <input type="checkbox"/> 尚未請購核銷 <input type="checkbox"/> 經費餘款_____
計畫執行年度/學期	109 學年度 第 2 學期	參賽期程	110 年 05 月 01 日
參加競賽/學術活動名稱	2021 The 5th ACS Taiwan Chapter Graduate Student Conference	作品名稱	Synthesis of Dibenzosuberones via Palladium-Mediated Intramolecular C-H/C-H Bond Cross-Coupling of <i>ortho</i> -Aroylated 3,5-Diarylisoxazoles and Mechanistic Investigation
指導參賽學生姓名	陳科諒	班級	碩士二年級
競賽性質	<input type="checkbox"/> 國際性 <input checked="" type="checkbox"/> 校際 <input type="checkbox"/> 校內(院級以上)	參賽地點	淡江大學/台北
系所主管簽章		日期	
學院院長簽章		日期	



## 二、參賽作品：(論文摘要或作品說明)

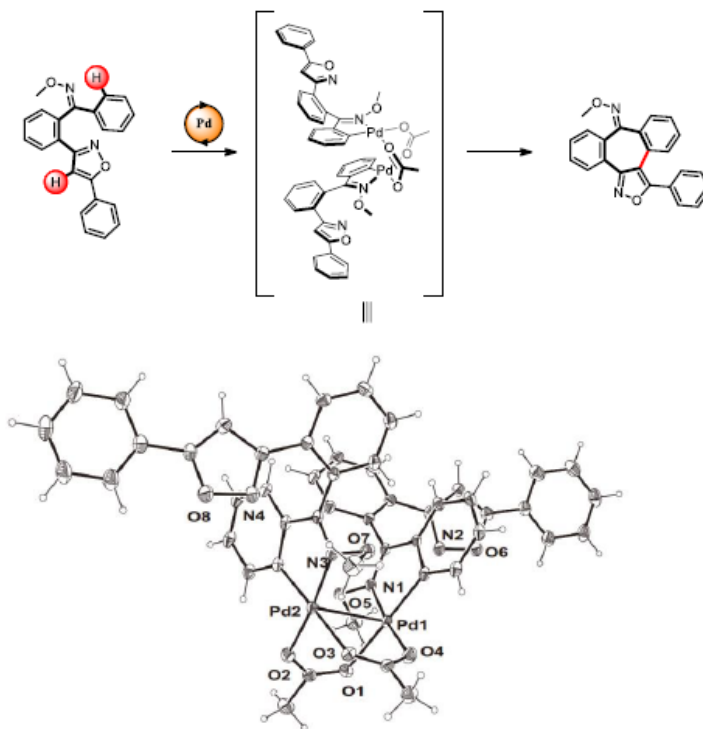
### Synthesis of Dibenzosuberones via Palladium-Mediated Intramolecular C-H/C-H Bond Cross-Coupling of *ortho*-Aroylated 3,5-Diarylisoxazoles and Mechanistic Investigation

Ke-Liang Chen (陳科諒) and Jean-Ho Chu (朱見和)\*

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A simple and efficient methodology for the synthesis of dibenzosuberones bearing an isoxazole group was presented. In the study, *ortho*-aroylated 3,5-diarylisoxazoles were employed as starting materials, in which the *O*-methyl oxime was utilized as a removable directing group. The reaction shows good functional group tolerance with modest-to-good yields. Finally, the structure of the key palladacycle was synthesized and confirmed by X-ray crystallography.



[1] Dastan, A.; Saracoglu, N.; Kilic, H. *Synthesis* **2018**, *50*, 391-439.

[2] Chao, T.; Su, Z. H.; Yen, K. W.; Wu, M. J.; Chu, J. H. *J. Org. Chem.* **2021**, *85*, 5559-5569.

[3] Sahoo, S.; Pal, S. *J. Org. Chem.* **2021**, *86*, 4081-4097.



Ke-Liang Chen (陳科諒)

M.S. 2019-present (Advisor: Prof. Jean-Ho Chu) and B.S. 2016-2019 Department of Applied Science, National Taitung University, Taitung, Taiwan. Research Interests: Transition-metal-catalyzed C-H bond activation and transformation.



國立臺東大學 理工學院

NATIONAL TAITUNG UNIVERSITY COLLEGE of SCIENCE and ENGINEERING

三、參加之競賽活動：(請依據參加活動次數，依序附上相關活動簡章或海報、議程與參加證明等佐證資料)



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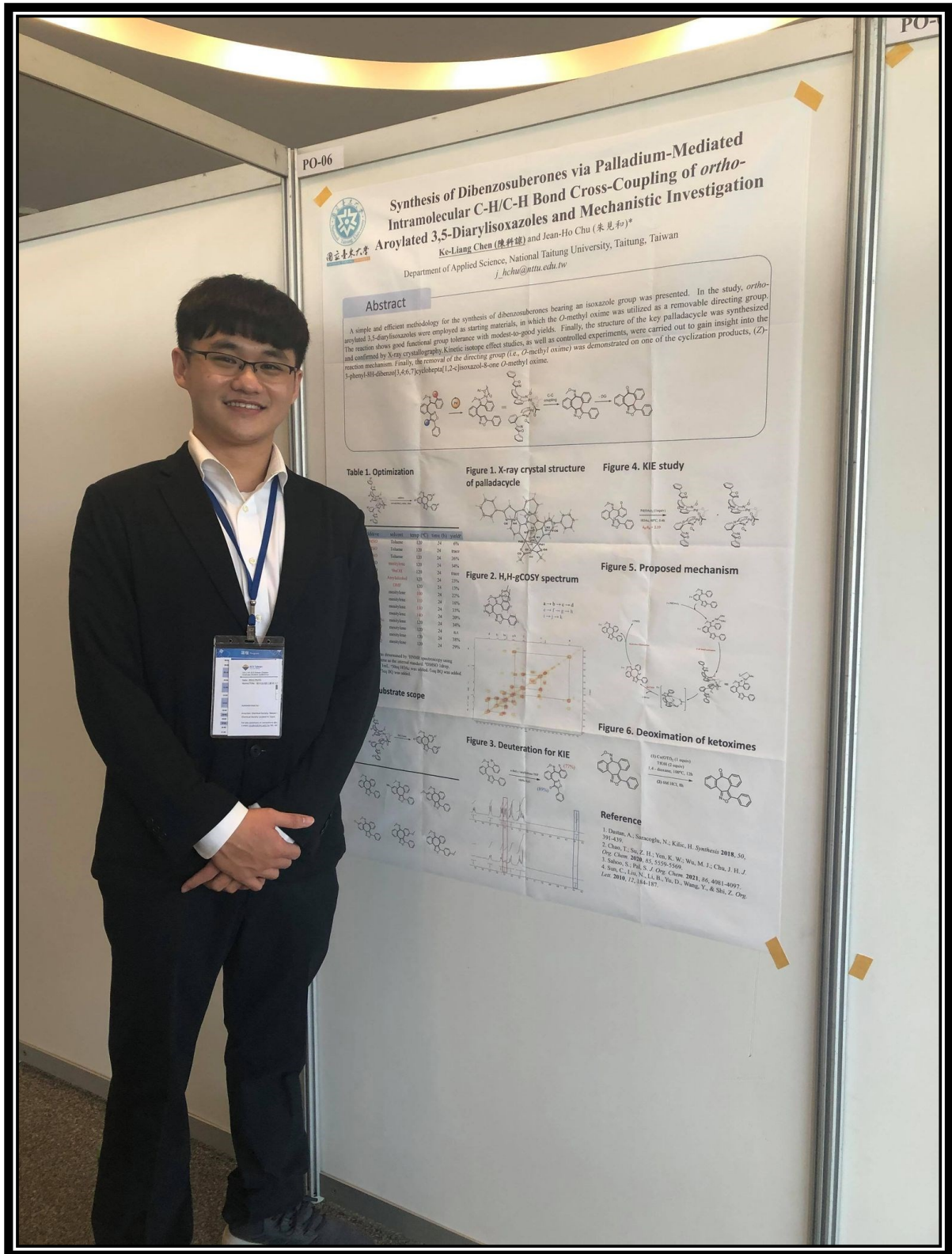
May 1, 2021  
Department of Chemistry  
Tamkang University





#### 四、參賽準備與活動記錄

※請附文字說明與 4-6 張活動照片 (無照片則免附)



圖說明：陳科諒同學論文壁報報告。



五、參加競賽成果 (參賽證明、得獎證明或學生心得)

