CURRICULUM VITAE

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Prof. Wei-Min DAI (戴偉民)

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URL: https://orcid.org/0000-0001-5688-7606
URL: https://www.webofscience.com/wos/author/record/B-6981-2008
[Web of Science total citations: **5996**; h-index: **36**]

Education:

10/1978–7/1982	BSc, July, 1982, Hangzhou University, China
9/1982–9/1985	MSc, December 1984, Shanghai Institute of Organic Chemistry, The Chinese Academy of Sciences, China
10/1985–4/1990	PhD, March 1990, Institute for Chemical Research, Kyoto University, Japan

Appointments:

5/1990–8/1992	Research Associate, The Scripps Research Institute, La Jolla, CA, USA (Prof. K. C. Nicolaou's group)
9/1992–12/1997	Assistant Professor, Department of Chemistry, HKUST
1/1998–6/2007	Associate Professor, Department of Chemistry, HKUST
7/2007–6/2023	Professor, Department of Chemistry & Center for Cancer Research, HKUST
7/2023–present	Professor Emeritus, Department of Chemistry, HKUST

Research Interests:

Total synthesis and diverted total synthesis of macrolides and biomedically significant natural products; asymmetric catalysis and enantioselective reactions; diversity-oriented synthesis of privileged heterocyclic scaffolds; microwave chemistry for solution and solid phase synthesis.

Professional Services:

Secretary-General: The 3rd International Symposium for Chinese Medicinal Chemists (ISCMC-2002).
Cheung Kong Scholar: Zhejiang University, Hangzhou, China (2003).
Guest Editor: "Natural Products as an Inexhaustible Source for Drug Discovery" *Current Medicinal Chemistry*, Vol. 10, No. 21, November, **2003**.
Co-organizer: Symposium on "*Diversity-Oriented Synthesis (#32)*", Pacifichem 2010, Honolulu, Hawaii, USA, 19 December, 2010.
Co-editor: "New Development in Natural Product Chemistry", Special Memorial Issue for Professor Wei-Shan Zhou, *Tetrahedron*, Vol. 75, No. 12, 22 March **2019**.

Selected Publications (from a total of 137 referred journal papers):

1. "Synthesis of the macrolactone cores of maltepolides via a diene–ene ring-closing metathesis strategy"
   M. K. Sit, H. H. Cao, Y.-D. Wu, T. C. Yip, L. E. Bendel, W. Zhang, Wei-Min Dai,* *Org. Lett.* **2023**, *25*, 1633–1637. [inside cover picture]

2. "Synthesis of the C19–C30 bis-THF fragment of iriomoteolide-13a via stepwise S_N2 cyclization and intramolecular *syn*-oxypalladation"
   H. Zhao, K. Gao, H. Ma, T. C. Yip, Wei-Min Dai,* *Org. Chem. Front.* **2021**, *8*, 6491–6498. [inside front cover picture]

3. "Asymmetric total synthesis of the highly strained 4β-acetoxyprobotryane-9β,15α-diol"
   W. Zhang, Z.-X. Zhou, X.-J. Zhu, Z.-H. Sun, Wei-Min Dai, C.-C. Li,* *J. Am. Chem. Soc.* **2020**, *142*, 19868–19873.

4. "Intramolecular Diels–Alder cycloaddition approach toward the *cis*-fused $\Delta^{5,6}$-hexahydroisoindol-1-one core of cytochalasins"
   J. Xu, B. Lin, X. Jiang, Z. Jia, J. Wu,* Wei-Min Dai,* *Org. Lett.* **2019**, *21*, 830–834.

5. "Total synthesis laingolide B stereoisomers and assignment of absolute configuration"
   C. Cui, Wei-Min Dai,* *Org. Lett.* **2018**, *20*, 3358–3361.

6. "Microwave-assisted intramolecular Ullmann diaryl etherification as the post-Ugi annulation for generation of dibenz[*b*,*f*][1,4]oxazepine scaffold"
   J. Shi, J. Wu, C. Cui, Wei-Min Dai,* *J. Org. Chem.* **2016**, *81*, 10392–10403.

7. "Synthesis of the conjugated tetraene acid side chain of mycolactone E by Suzuki–Miyaura cross-coupling reaction of alkenyl boronates"

Y. Wang, Wei-Min Dai,* *Eur. J. Org. Chem.* **2014**, 323–330. [front cover picture]

8. "An efficient and reliable catalyst system using hemilabile Aphos for *B*-alkyl Suzuki–Miyaura cross-coupling reaction with alkenyl halides"
   N. Ye, Wei-Min Dai,* *Eur. J. Org. Chem.* **2013**, 831–835. [front cover picture]

9. "Generation of molecular shape diversity. From privileged scaffolds to diverted total synthesis"
   Wei-Min Dai,* *Diversity Oriented Synthesis* **2012**, *1*, 11–20.

10. "$In(OTf)_3$-catalyzed highly chemo- and regioselective head-to-tail heterodimerization of vinylarenes with 1,1-diarylethenes"
    J. Dai, J. Wu, G. Zhao, Wei-Min Dai,* *Chem. Eur. J.* **2011**, *17*, 8290–8293.

11. "A concise total synthesis of amphidinolide T2"
    H. Li, J. Wu, J. Luo, Wei-Min Dai,* *Chem. Eur. J.* **2010**, *16*, 11530–11534.

12. "Generation of an aromatic amide-derived phosphane (Aphos) library by self-assisted molecular editing and applications of Aphos in room-temperature Suzuki-Miyaura reactions"
    Wei-Min Dai,* Y. Li, Y. Zhang, C. Yue, J. Wu, *Chem. Eur. J.* **2008**, *14*, 5538–5554.

13. "Synthesis of C13–C25 fragment of 24-demethylbafilomycin C_1 via diastereoselective aldol reactions of a ketone boron enolate as the key step"
    Y. Guan, J. Wu, L. Sun, Wei-Min Dai,* *J. Org. Chem.* **2007**, *72*, 4953–4960.

14. "Total synthesis of amphidinolide Y by formation of trisubstituted (*E*)-double bond via ring-closing metathesis of densely functionalized alkenes"
    J. Jin, Y. Chen, Y. Li, J. Wu, Wei-Min Dai,* *Org. Lett.* **2007**, *9*, 2585–2588.

15. "An engineered linker capable of promoting on-resin reactions for microwave-assisted solid-phase organic synthesis"
    L.-P. Sun, Wei-Min Dai,* *Angew. Chem. Int. Ed.* **2006**, *45*, 7255–7258.

16. "Efficient remote axial-to-central chirality transfer in enantioselective SmI_2-mediated reductive coupling of aldehydes with crotonates of atropisomeric 1-naphthamides"
    Y. Zhang, Y. Wang, Wei-Min Dai,***** *J. Org. Chem.* **2006**, *71*, 2445–2455.

17. "Structures and total syntheses of the plecomacrolides"
    Wei-Min Dai,* Y. Guan, J. Jin, *Curr. Med. Chem.* **2005**, *12*, 1947–1993.

18. "Microwave-assisted solid phase organic synthesis (MASPOS) as a key step for an indole library construction"
    Wei-Min Dai,* D.-S. Duo, L.-P. Sun, X.-H. Huang, *Org. Lett.* **2003**, *5*, 2919–2922.

19. "Natural product inspired design of enediyne prodrugs via rearrangement of an allylic double bond"
    Wei-Min Dai*****, *Curr. Med. Chem.* **2003**, *10*, 2265–2283.

20. "A novel class of nonbiaryl atropisomeric P,O-ligands for palladium-catalyzed asymmetric allylic alkylation"
    Wei-Min Dai,* K. K. Y. Yeung, J.-T. Liu, Y. Zhang, I. D. Williams, *Org. Lett.* **2002**, *4*, 1615–1618.

21. "DNA cleavage potency, cytotoxicity, and mechanism of action of a novel class of enediyne prodrugs"
    Wei-Min Dai,* K. W. Lai, A. Wu, W. Hamaguchi, M. Y. H. Lee, L. Zhou, A. Ishii, S. Nishimoto, *J. Med. Chem.* **2002**, *45*, 758–761.

22. "Synthesis and DNA cleavage study of a 10-membered ring enediyne formed via allylic rearrangement"
    Wei-Min Dai,* K. C. Fong, C. W. Lau, L. Zhou, W. Hamaguchi, S. Nishimoto, *J. Org. Chem.* **1999**, *64*, 682–683.

23. "Synthesis of *cis*-enediynes from 1,5-diynes by rearrangement of an allylic double bond"
    Wei-Min Dai,* K. C. Fong, H. Danjo, S. Nishimoto, *Angew. Chem. Int. Ed. Engl.* **1996**, *35*, 779–781.

24. "Influence of alkyl substituent on the asynchronous transition structure of boron-catalyzed Diels–Alder cycloaddition of α,β-unsaturated aldehydes with 1,1-dimethyl-1,3-butadiene derivatives"
    Wei-Min Dai,* C. W. Lau, S. H. Chung, Y.-D. Wu, *J. Org. Chem.* **1995**, *60*, 8128–8129.