

CURRICULUM VITAE

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Prof. Wei-Min DAI (戴偉民)



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URL: <http://www.researcherid.com/rid/B-6981-2008> [total citations: **5466**; 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–present	Professor, Department of Chemistry & Center for Cancer Research, 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:

Editorial Advisory Board Member: *Letters in Drug Design & Discovery*, and *Recent Patents on Anti-Cancer Drug Discovery* (Bentham Science Publishers Ltd.).
Editorial Advisory Board Member: *Chinese Journal of Medicinal Chemistry* (Shenyang Pharmaceutical University & Chinese Pharmaceutical Association)
Guest Editor: "Natural Products as an Inexhaustible Source for Drug Discovery" *Current Medicinal Chemistry*, Vol. 10, No. 21, November, **2003**.
Secretary-General: The 3rd International Symposium for Chinese Medicinal Chemists (ISCMC-2002).
Cheung Kong Scholar: Zhejiang University, Hangzhou, China (2003).
Co-organizer: Symposium on "Diversity-Oriented Synthesis (#32)", Pacificchem 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 132 referred journal papers):

1. "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.
2. "Total synthesis laingolide B stereoisomers and assignment of absolute configuration"
C. Cui, Wei-Min Dai, * *Org. Lett.* **2018**, *20*, 3358–3361.
3. "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.
4. "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. [cover picture]
5. "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. [cover picture]

6. "Generation of molecular shape diversity. From privileged scaffolds to diverted total synthesis"
Wei-Min Dai,* *Diversity Oriented Synthesis* **2012**, *1*, 11–20.
7. "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.
8. "A concise total synthesis of amphidinolide T2"
H. Li, J. Wu, J. Luo, Wei-Min Dai,* *Chem. Eur. J.* **2010**, *16*, 11530–11534.
9. "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.
10. "Synthesis of C13–C25 fragment of 24-demethylbafilomycin C₁ 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.
11. "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.
12. "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.
13. "Efficient remote axial-to-central chirality transfer in enantioselective SmI₂-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.
14. "Structures and total syntheses of the plecomacrolides"
Wei-Min Dai,* Y. Guan, J. Jin, *Curr. Med. Chem.* **2005**, *12*, 1947–1993.
15. "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.
16. "Natural product inspired design of enediyne prodrugs via rearrangement of an allylic double bond"
Wei-Min Dai,* *Curr. Med. Chem.* **2003**, *10*, 2265–2283.
17. "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.
18. "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.
19. "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.
20. "Synthesis of *cis*-Enediynes from 1,5-diyne 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.
21. "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.