



The Combustion Institute

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Prof. Bin Yang

2024 Candidate Profile: The Combustion Institute Board of Directors

Reasons for Nomination

As a member of The Combustion Institute family for almost 20 years, I've immersed myself in serving roles ranging from colloquium chair/co-chair at symposiums, various committee member, to associate editor/editorial board member of CI journals. These experiences have not only enriched my professional journey but have also allowed me to contribute to the fabric of the combustion community.

If elected as a Board member, I would support efforts to foster interdisciplinary collaboration and to nurture the next generation of combustion researchers. Tremendous advancements in experimental and numerical research in combustion can help to address challenging problems in neighboring disciplines. Meanwhile, to integrate AI and data science into combustion research may enhance our approach to sustainable energy solutions. I would be interested in establishing mentorship programs, designed to bridge the knowledge gap between our esteemed members and those just entering the field. This mentorship will not only provide guidance and support but also inspire a culture of continuous learning and curiosity. Furthermore, I am passionate about instituting recognition programs that highlight the achievements of young and mid-career scientists. I strongly believe that combustion, as a fantastic playground for both scientists and engineers, will retain its importance and interest in the future.



See the next page for the candidate's curriculum vitae.

Current Positions:

Professor of the Department of Energy and Power Engineering, Tsinghua University, Beijing, China
Associate Director of the Center for Combustion Energy, Tsinghua University, Beijing, China

Professional Experience and Education:

2012-present: Professor, Tsinghua University, Beijing China
2012-2012: Research Associate, University of Southern California, Los Angeles, CA, USA
2010-2012: Combustion Energy Research Fellow, Princeton University, Princeton, NJ, USA
2006-2010: Postdoctoral Research Associate, Cornell University, Ithaca, NY, USA
2001-2006: Ph.D. in Combustion Chemistry, University of Science and Technology of China, Hefei, China
1996-2001: B.S. in Polymer Material, University of Science and Technology of China, Hefei, China

Selected Service to the Community:

Associate Editor, "*Combustion Science and Technology*", 2016-present
Guest Editor, "*Combustion and Flame*", 2011-2022
Member of Editorial board, "*Fuel*", 2019-present
Colloquia Coordinate (CC) of the 38th *International Symposium on Combustion*
Colloquia Co-Chair (CCC) of the 36th, 37th, 39th, 40th *International Symposium on Combustion*
Member of the Executive Officer Nomination Committee of the CI, 2019-2020
Member of Hiroshi Tsuji Early Career Researcher Award Committee of the CI, 2018, 2019 and 2020
Member of ICISS committee of the CI, 2015-2016
Member of the Board of Director Nominations Committee of the CI, 2013-2014
Co-chair of the 7th *International Flame Chemistry Workshop*, Milan, 2024
Secretary General of the 10th *Asian-Pacific Combustion Conference*, 2015
Program Co-Chair of the 4th and 5th *China National Young Scholar Meeting on Combustion*, 2018, 2019

Selected Honors and Awards:

- Fellow of The Combustion Institute, 2021
- Invited Topic Review Lecturer, the 38th *International Symposium on Combustion*, 2021
- Combustion Institute Research Excellence Award, 2020
- China National Award for Natural Sciences (Second class), 2018
- Research Fellow of US DOE's Combustion Energy Frontier Research Center, 2010

Scientific Records:

- Publications: **146** in peer-reviewed international journals (46 in CNF and 40 in PCI)
- Researcher ID: **h-index: 35**; <https://www.webofscience.com/wos/author/record/A-7158-2008>
- ORCID: <https://orcid.org/0000-0001-7333-0017>

Selected Publications:

- K. Lin, Z. Zhou, **B. Yang**, "Combustion kinetic model optimization using the derived targets from MBMS experiments", *Combust. Flame*, 243, 112001 (2022).
- Z. Zhou, K. Lin, Y. Wang, J. Wang, C.K. Law, **B. Yang**, "OptEx: An integrated framework for experimental design and combustion kinetic model optimization", *Combust. Flame*, 245, 112298 (2022).
- **B. Yang**, "Towards predictive combustion kinetic models: Progress in model analysis and informative experiments", *Proc. Combust. Inst.*, 38, 199-222 (2021).
- R. Zhang, H. Liao, J. Yang, X. Fan, **B. Yang**, "A molecular beam mass spectrometric investigation of plasma assisted oxidation and pyrolysis of methane", *Proc. Combust. Inst.*, 37, 5577-5586 (2019).