

DONNA G. BLACKMOND – PUBLICATIONS

1. Blanco, C.; Lai, Y.-C.; Matsubara, Y.J.; Murugan, A.; Derr, J.; Szostak, J.W.; Paegel, B.; Blackmond, D.G.; Chen, I.A. Amplification of Selective Permeability by Multilamellar Protocells as a Mechanism of Prebiotic Chemical Selection. Submitted.
2. Cao, Y.; Rodphon, W.; Alturaifi, T.M.; Lisboa, A.V.R.D.; Ren, Z.; Struijs, J.C.; Ni, H.-Q.; Savchuk, T.; Loach, R.P.; Yang, S.; McAlpine, S.J.; Blackmond, D.G.; Mykhailiuk, P.K.; Liu, P.; Sharpless, K.B.; Engle, K.M. Alkyl sulfonyl Fluorides as Ambiphiles in the Stereoselective Palladium(II)-Catalyzed Cyclopropanation of Unactivated Alkenes. ChemRxiv, 10.26434/chemrxiv-2024-pdplt; Nature Synth., in press.
3. Deng, M.; Blackmond, D.G. Kinetic Profiles as a Diagnostic Probe of Complex Multi-Cycle Catalytic Reaction Networks. *J. Org. Chem.* **2025**, 90 (36), 12550-12557. PMID: 40891987. — Invited contribution for special issue “Physical Organic Chemistry: Never Out of Style”
4. Higgs, P.G.; Blackmond, D.G. Autocatalytic symmetry breaking and chiral amplification in a feedback network combining amino acid synthesis and ligation. *Proc Natl Acad Sci U S A* **2025**, 122 (20), e2423683122. PMID: 40377991.
5. Yu, J.; Blackmond, D.G. Nonclassical Nonlinear Effects (nc-NLEs) Provide Mechanistic Insights in Asymmetric Catalytic Cascade Reactions. *ACS Catalysis*. **2025**, 15(5), 3890–7.
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7. Deng, M.; Yu, J.; Blackmond, D.G. Kinetic resolution as a general approach to enantioenrichment in prebiotic chemistry. *Acc Chem Res* **2024**, 57 (16), 2234-2244. PMID: 39115809.
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9. Yu, J.; Daru, A.; Deng, M.; Blackmond, D.G. Prebiotic access to enantioenriched amino acids via peptide-mediated transamination reactions. *Proc Natl Acad Sci USA* **2024**, 121 (7), e2315447121. PMID: 38315856.

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11. Burés, J.; Armstrong, A.; Blackmond, D.G. A tutorial on kinetic-assisted mechanistic analysis in asymmetric aminocatalysis. In: *Asymmetric organocatalysis: New strategies, catalysts, and opportunities*. Eds. L. Albrecht; A. Albrecht; L. Dell'Amico. Wiley VCH Verlag GmbH, **2023**; pp. 657-678.
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