



Special Seminar Department of Chemistry

Thursday, May 18th, 2023

Time: 14:00

Bldg. 35 Room 312

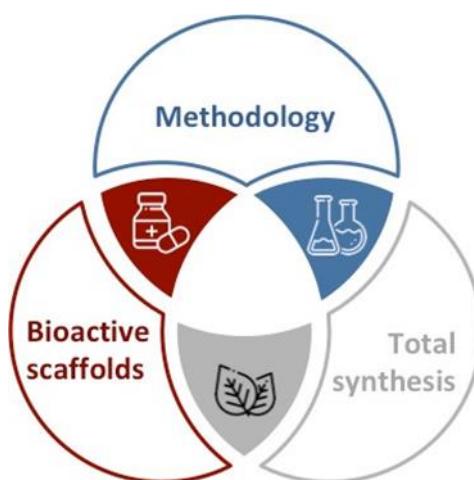
Prof. Stellios Arseniyadis

Queen Mary, University of London | QMUL · School of Biological and Chemical Sciences

<https://arseniyadislab.sbccs.qmul.ac.uk/>

From organometallic catalysis to bio-hybrid catalysis: Some recent results from the group

For the past several years, the group has focused on the development of new synthetic tools with a special emphasis given to structural and functional complexity. These methods span within the areas of transition metal catalysis, asymmetric organocatalysis and, more recently, bio-hybrid catalysis. In this context, we've developed a number of synthetic methods involving either palladium-catalysed asymmetric allylic alkylation processes¹ or DNA-catalysed transformations.² I'll present some of our most recent results.



References

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- [¹²] (a) Duchemin, N.; Aubert, S.; de Souza, J. V.; Bethge, L.; Vonhoff, S.; Bronowska, A. K.; Smietana, M.; Arseniyadis, S. *JACS Au* **2022**, *2*, 1910. (b) Mansot, J.; Lauberteaux, J.; Lebrun, A.; Mauduit, M.; Vasseur, J.-J.; Marcia de Figueiredo, R.; Arseniyadis, S.; Campagne, J.-M.; Smietana, M. *Chem. Eur. J.* **2020**, *26*, 3519. (c) Mansot, J.; Aubert, S.; Duchemin, N.; Vasseur, J.-J.; Arseniyadis, S.; Smietana, M. *Chem. Sci.* **2019**, 2875. (d) Duchemin, N.; Skiredj, A.; Mansot, J.; Leblanc, K.; Vasseur, J.-J.; Beniddir, M. A.; Evanno, L.; Poupon, E.; Smietana, M.; Arseniyadis, S. *Angew. Chem. Int. Ed.* **2018**, *57*, 11786. (e) Duchemin, N.; Benedetti, E.; Bethge, L.; Vonhoff, S.; Klussmann, S.; Vasseur, J.-J.; Cossy, J.; Smietana, M.; Arseniyadis, S. *Chem. Commun.* **2016**, *52*, 8604. (f) Amirbekyan, K.; Duchemin, N.; Benedetti, E.; Joseph, R.; Colon, A.; Markarian, S. A.; Bethge, L.; Vonhoff, S.; Klussmann, S.; Cossy, J.; Vasseur, J.-J.; Arseniyadis, S.; Smietana, M. *ACS Catal.* **2016**, *6*, 3096. (g) Benedetti, E.; Duchemin, N.; Bethge, L.; Vonhoff, S.; Klussmann, S.; Vasseur, J.-J.; Cossy, J.; Smietana, M.; Arseniyadis, S. *Chem. Commun.* **2015**, *51*, 6076. (h) Wang, J.; Benedetti, E.; Bethge, L.; Vonhoff, S.; Klussmann, S.; Vasseur, J.-J.; Cossy, J.; Smietana, M.; Arseniyadis, S. *Angew. Chem. Int. Ed.* **2013**, *52*, 11546.