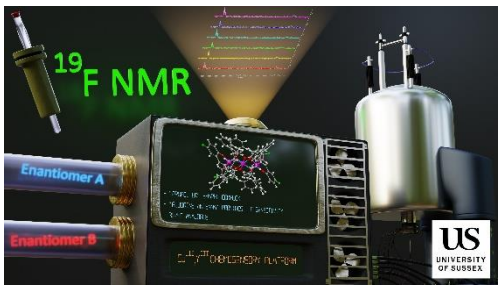
Chemical Chartographisis in Catalytic and Biochemistry related examples

George E. Kostakis
Department of Chemistry, School of Life Sciences, University of Sussex,
Brighton BN1 9QJ, UK
E-mail: G.Kostakis@sussex.ac.uk

Chemical Chartographisis is a complementary synthetic approach exploiting compositional parameters and correlating topology (structure) and property relationships. This work presents examples of Chemical Chartographisis in Catalysis and Biochemistry. Specifically, we will describe

a) sustainable Copper-based methodologies that yield organic scaffolds of high pharmaceutical importance, including propargylamines and dihydropyridines,
b) the rational design of a tunable Cu(II) chelating scaffold which prevents the formation of reactive oxygen species; an essential aspect for diseases such as Alzheimer's, Prion, Wilson
c) the use of complexes to ease sense amines and amino acids.



References

1 J. Devonport, L. Sully, A. K. Boudalis, S. Hassell-Hart, M. C. Leech, K. Lam, A. Abdul-Sada, G. J. Tizzard, S. J. Coles, J. Spencer, A. Vargas and G. E. Kostakis, *JACS Au*, 2021, **1**, 1937–1948.
2 M. Kallitsakis, E. Loukopoulos, A. Abdul-Sada, G. J. Tizzard, S. J. Coles, G. E. Kostakis and I. N. Lykakis, *Adv. Synth. Catal.*, 2017, **359**, 138–145.
3 J. Devonport, N. Bodnár, A. McGown, M. Bukar Maina, L. C. Serpell, C. Kállay, J. Spencer and G. E. Kostakis, *Inorg. Chem.*, 2021, **60**, 15310–15320.