

- This weeks (39) topics topics: More on graph canonicalisation and graph isomorphism, SMILES, if time allows: starting with Ring Perception, Hanser Algorithm.
- The revive strategy in mød will be explained.

- Mandatory Reading:

- Besides the articles you already have, the following articles by Weininger (SMILES1 and SMILES2, see blackboard) give a chemical perspective of how to “solve” graph canonicalisation. Please note again, that the graph canonicalisation described in these articles is not correct. In class a counterexample will be given.
- (for week 40): Franziska Berger, Christoph Flamm, Petra M. Gleiss, Josef Leydold, Peter F. Stadler: *Counterexamples in Chemical Ring Perception*. Journal of Chemical Information and Modeling 44(2): 323-331 (2004)
- Section 2.5 of the book by Gasteiger et al. (for an easy introduction)
- (for week 40): Hanser T, Jauffret P, Kaufmann G, (1996), *A New Algorithm for Exhaustive Ring Perception in a Molecular Graph*. J Chem Inf Comput Sci, 36(6):1146-1152. DOI:10.1021/ci960322f

- Recommended Reading:

- (for week 40): Downs, G.M., Gillet, V.J., Holliday, J.D., Lynch, M.F.: *Theoretical aspects of ring perception and development of the extended set of smallest rings concept*. Journal of Chemical Information and Computer Sciences, 187-206 (1989)