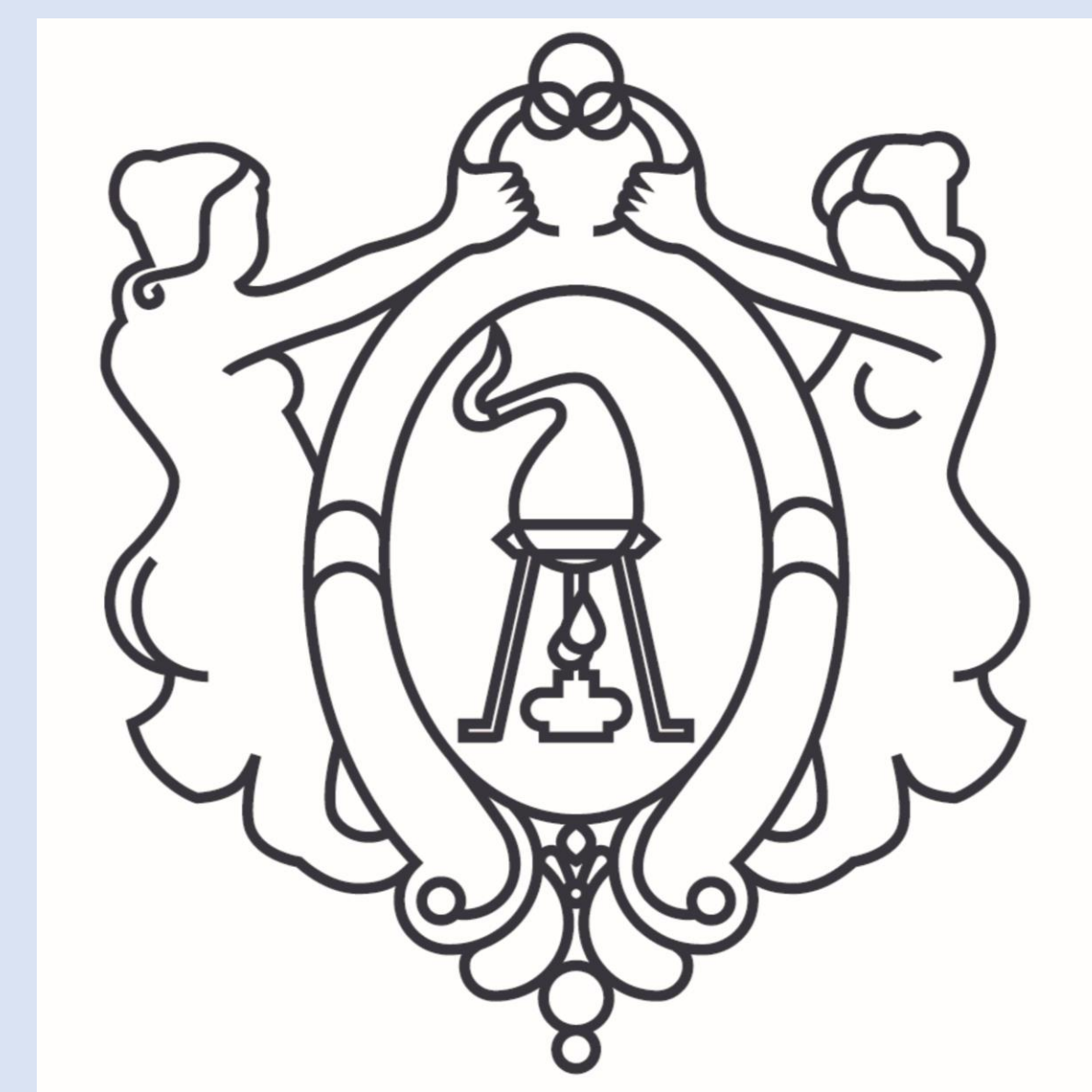


PHASE TRANSFER CATALYSIS THROUGH

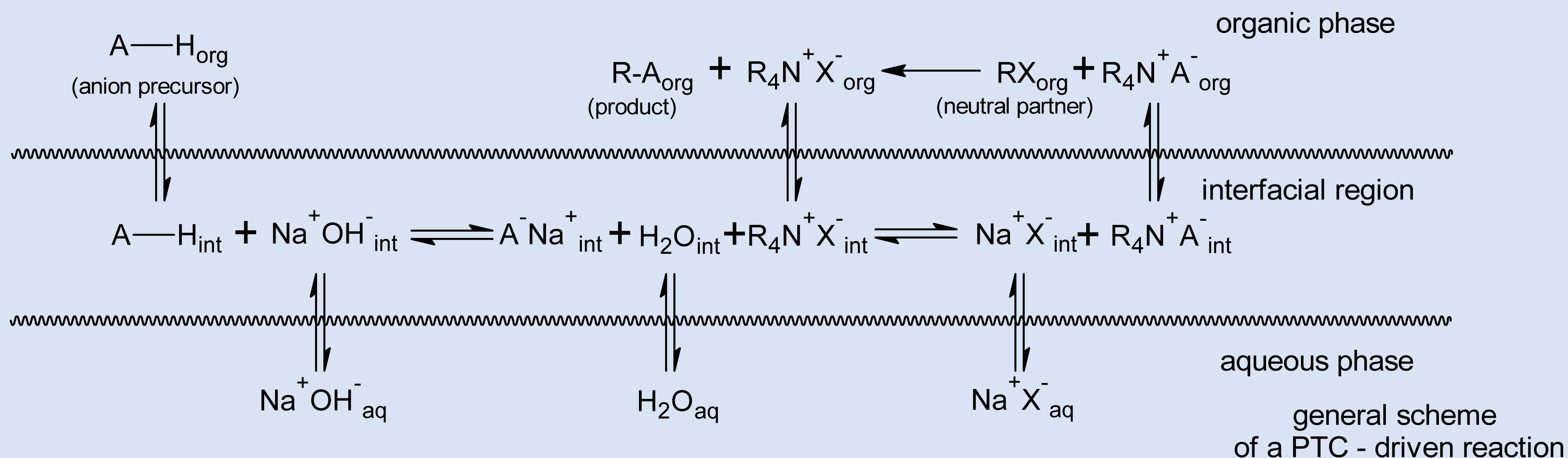
“ORGANIC SYNTHESSES” GLASSES

Stanisław Kulczyk¹, Michał Fedoryński²

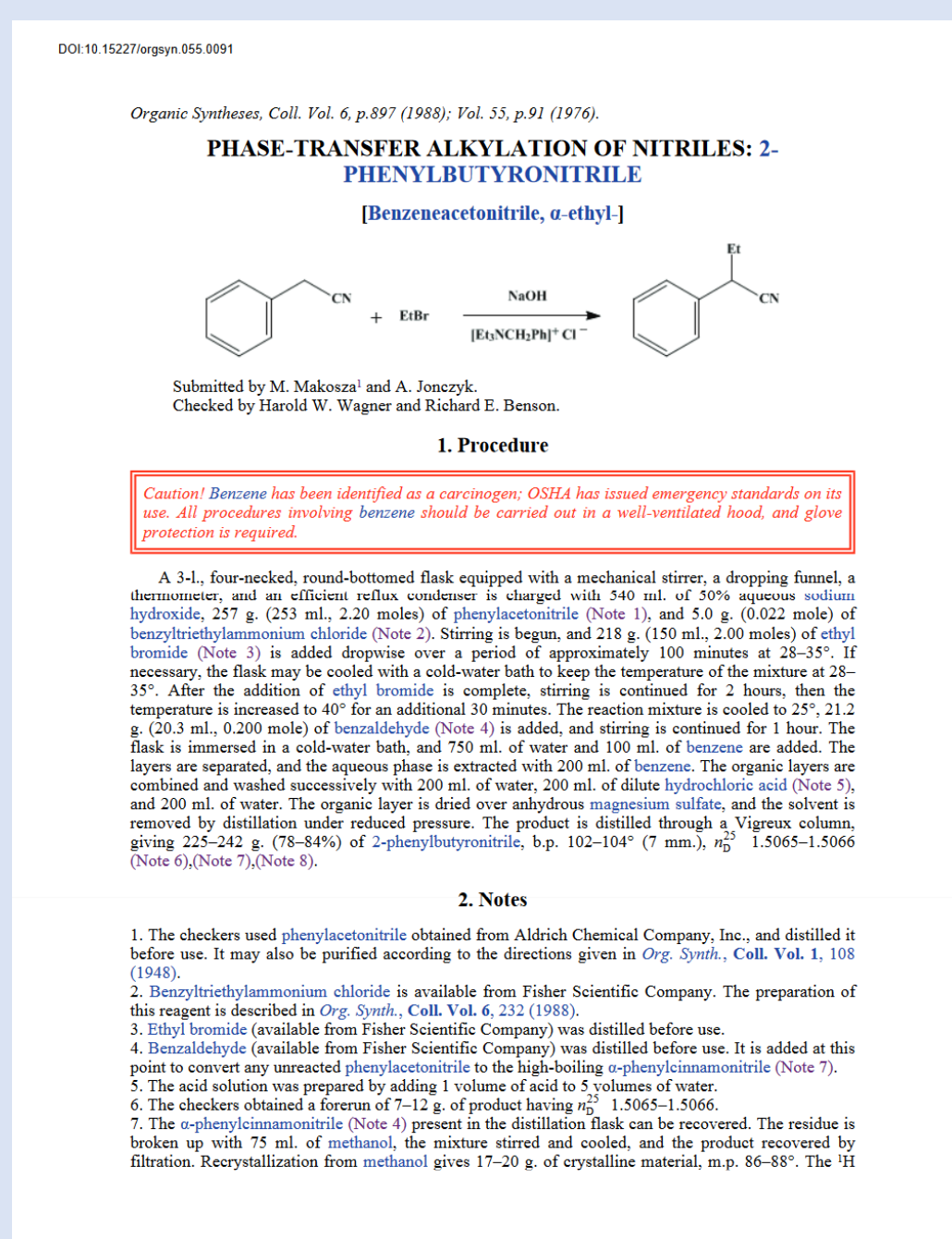
1) Vth High School of Prince Józef Poniatowski, Warsaw
2) Faculty of Chemistry, Warsaw University of Technology



Phase Transfer Catalysis (PTC) – general and extremely useful method



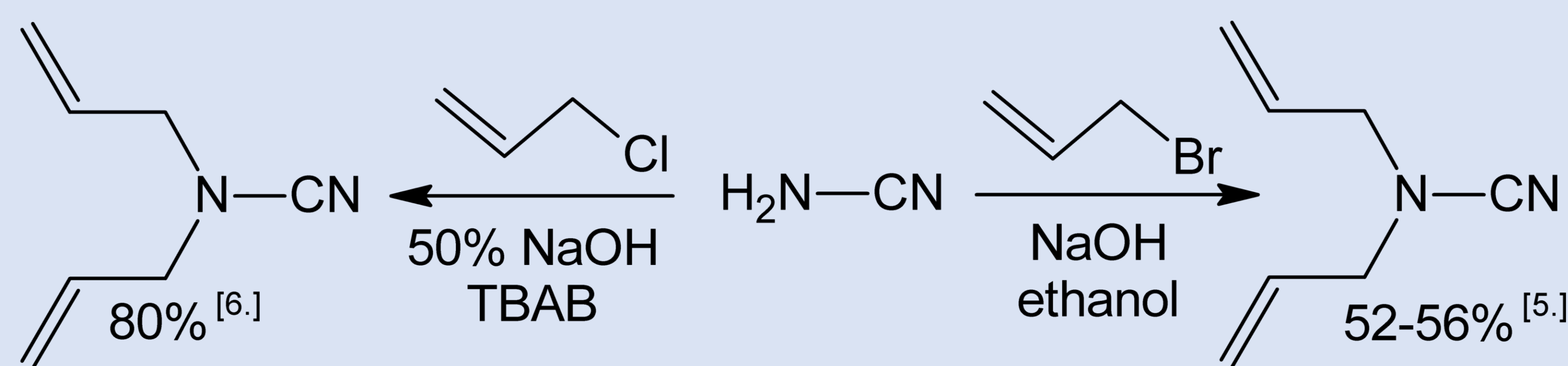
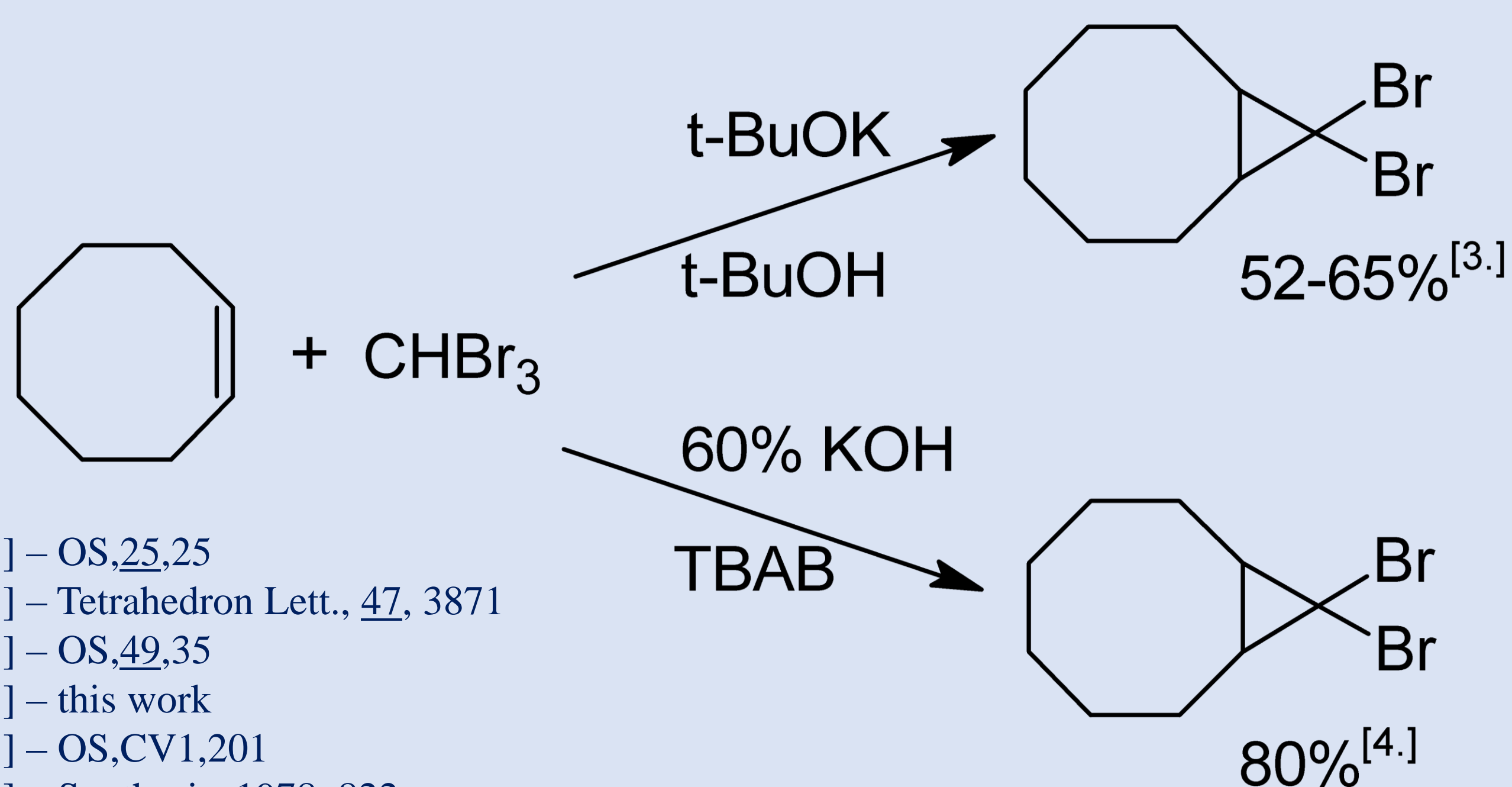
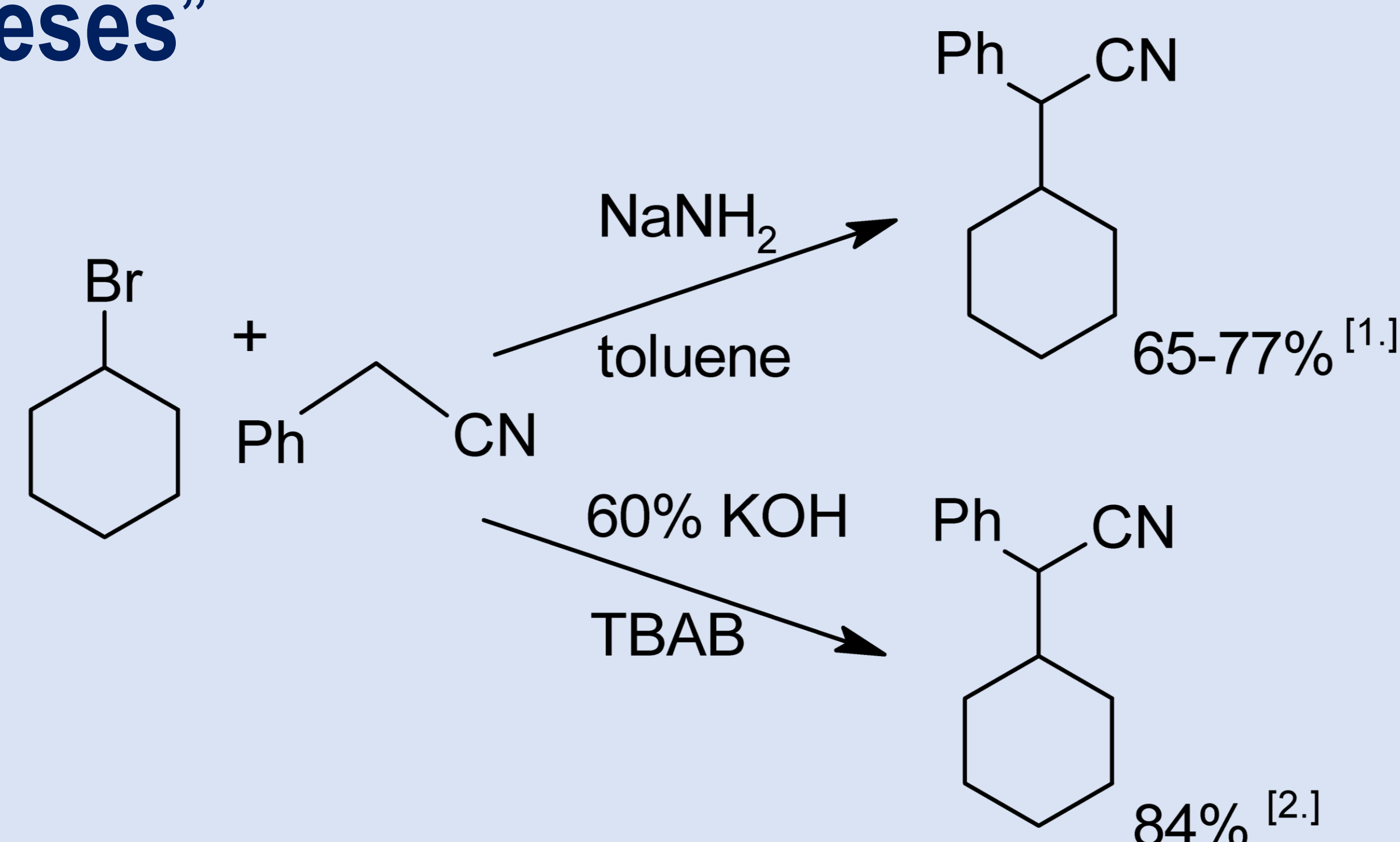
- Method for performing ion – neutral partner reactions
- Heterogeneous two – phase (organic and inorganic) system, tetraalkylammonium salt as a catalyst
- Anionic species being continuously introduced into the organic phase
- Increases yield and speed of many reactions
- Allows to avoid use of solvents and strong bases



- Publishes carefully checked procedures
- Preparation of compounds of general interest
- Reactions of general utility
- 94 volumes released, starting from 1921
- ~2900 procedures presented

PTC in “Organic Syntheses”

- 30/2900 procedures (~1%) realised with use of PTC
 - All volumes of the „Organic Syntheses” searched
 - Abstracts reviewed, considering conditions and character of the transformation
- list of 71 more feasible reactions created, for example:



TBAB: tetrabutylammonium bromide

[1.] – OS,25,25
[2.] – Tetrahedron Lett., 47, 3871
[3.] – OS,49,35
[4.] – this work
[5.] – OS,CV1,201
[6.] – Synthesis, 1978, 822