

Assessment proposed by the supervisor: ^{Prof.} Dr. Ian Teasdale: ^{the thesis} recommended for the defense. It was a part of a company project. An advantage of this polymer is a possibility to make a microporous film surface of high surface area.

Course of the defence: ① Overview of the thesis entitled "Synthesis of high surface area polyimides" - another explained the reason of working on this group of organic compounds - its synthesis; aromatic features. He explained mechanisms of polymerization.

Features: ≥ 3 D noncovalent porous system \leftarrow Bulky molecules
Polymers of intrinsic microporosity
Good solubility
Advantage of a huge porosity - BET - a huge surface
Procedures of syntheses, optimization of conditions (p-Methylstyrene - monomer)
NMR analysis of the products:
Polyimides overview: BTDA polyimides
- a role of methylation \leftarrow highest surface and good solubility

Diels-Alder addition

Nice presentation: higher surface area
- Diels-Alder addition in polyimides synthesis.
Conclusion of the overview and acknowledgement

Reference discussion:
Q: Prof. Müller: how surface area is measured in polymers?
Q: Prof. Teasdale: NMR spectra of polyimides - show some impurities (acetone, TCM)?
Q: Prof. Teasdale: Mechanism of cyclization - using the white board
Q: Prof. Teasdale: raised several questions to technical details of the synthesized polymers. e.g. a role of side chain interactions for solubility and other moiety.

Score:
Assessment: EXCELLENT
Date of defence: 10/8/2020
Prof. Norbert MILLER
committee chairman
What's better
step-groups
what kind of polymerization: Polycondensation