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## Kinetics and thermodynamics of thermally reversible polymers

Li, Jing

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# Kinetics and thermodynamics of thermally reversible polymers

Based on the furan-maleimide DA reaction

Jing Li



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 and engineering



The research described in this thesis was performed in the Advanced Production Engineering (APE) group until May 2018, the Computational Mechanical and Materials Engineering (CMME) group as of June 2018, and the Product Technology group of the Engineering and Technology Institute Groningen (ENTEG) at the University of Groningen, the Netherlands.

**Book cover:** Background is the polymer chains we used in this thesis; (Front) green elements represent the inspiration for this research into thermally reversible polymers: a more environmentally-friendly use of polymer plastics; (Back) three figures show the basic topics in this thesis, "reaction heat flow", "reaction path", and "phase diagram", and the text is the abstract of this thesis.

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# **Kinetics and thermodynamics of thermally reversible polymers**

**Based on the furan-maleimide DA reaction**

**PhD thesis**

to obtain the degree of PhD at the  
 University of Groningen  
 on the authority of the  
 Rector Magnificus Prof. C. Wijmenga  
 and in accordance with  
 the decision by the College of Deans.

This thesis will be defended in public on

Friday 6 November 2020 at 12:45 hours

by

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To  
my beloved  
family



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