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## **Bridging the gap between macro and micro: enhancing students' chemical reasoning: how to use demonstration experiments effectively for the teaching and learning of structure-property reasoning**

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“Chemistry concepts are often different from the concepts we meet in most areas of life. They have no tangible aspect: we cannot relate to what our senses tell us.”

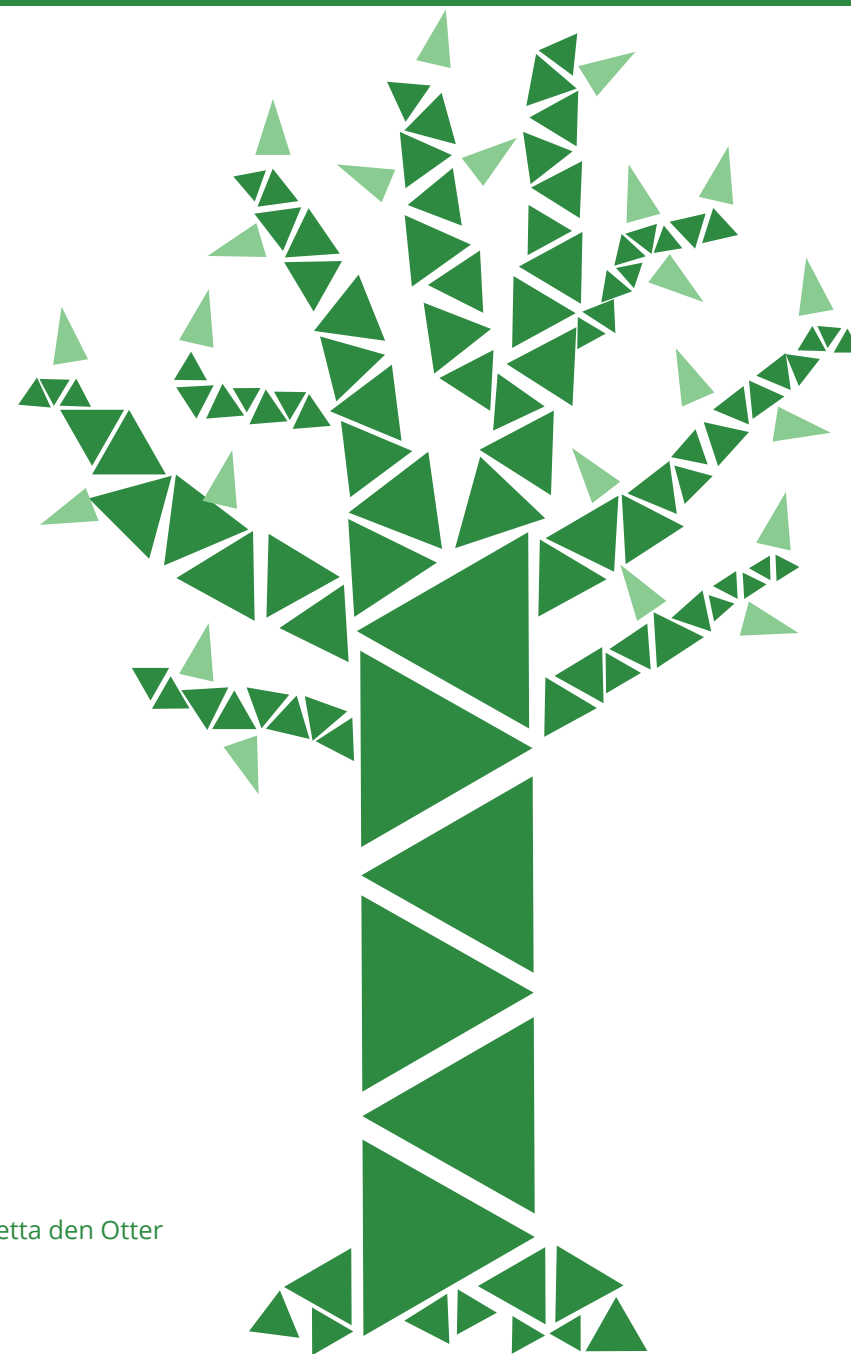
Alex H. Johnstone (1999, p. 46)



Bridging the Gap between Macro and Micro: Enhancing Students' Chemical Reasoning

## BRIDGING THE GAP BETWEEN MACRO AND MICRO: ENHANCING STUDENTS' CHEMICAL REASONING

How to use demonstration experiments effectively  
for the teaching and learning of structure-property reasoning



Marie-Jetta den Otter