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Optically probing structure and organization : single-molecule spectroscopy on polyethylene films and a resonance Raman study of a carotenoid

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Optically Probing Structure and Organization

Alexander C. Wirtz

The top image on the cover represents a DBATT molecule adsorbed on the lateral surface of a polyethylene crystal. The bottom image displays the composition of the 1240 cm^{-1} C–C stretch vibrational mode of a spheroidene molecule.

Optically Probing Structure and Organization

**single-molecule spectroscopy on polyethylene films
and a resonance Raman study of a carotenoid**

PROEFSCHRIFT

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van de Rector Magnificus Dr. D.D. Breimer,
hoogleraar in de faculteit der Wiskunde en
Natuurwetenschappen en die der Geneeskunde,
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te verdedigen op donderdag 26 oktober 2006
klokke 15:00 uur

door

Alexander Carel Wirtz
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in 1977

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*aan Petra en mijn familie
aan mijn moeder*

Monument
Dit plaatsmoment
Jouw leven in een moment,
Want het tijdsmoment verstreek.

Ons leven nu jouw monument
Ons laat-me-niet-alleen moment,
Voor jouw tijdsmoment,
Dat veel te snel
Verstreek.

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