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## Miniaturization and Application of Fiber Coupled Photoacoustic Gas Spectroscopy

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VRIJE UNIVERSITEIT

**MINIATURIZATION AND APPLICATION OF FIBER COUPLED  
PHOTOACOUSTIC GAS SPECTROSCOPY**

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad Doctor of Philosophy aan  
de Vrije Universiteit Amsterdam,  
op gezag van de rector magnificus  
prof.dr. V. Subramaniam,  
in het openbaar te verdedigen  
ten overstaan van de promotiecommissie  
van de Faculteit der Bètawetenschappen  
op maandag 6 juli 2020 om 13.45 uur  
in een online bijeenkomst van de universiteit,  
De Boelelaan 1105

door

Sheng Zhou

geboren te Changsha, China

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