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On-road measurements of vehicle NO₂/NO_x emission ratios in Denver, Colorado, USA

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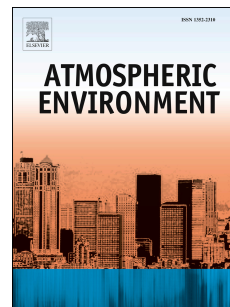
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1 On-road measurements of vehicle NO₂/NO_x
2 emission ratios in Denver, Colorado, USA

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11 ABSTRACT

12 Nitrogen oxides (NO_x = NO + NO₂) emitted by on-road combustion engines are important
13 contributors to tropospheric ozone production. The NO_x fraction emitted as nitrogen dioxide
14 (NO₂) is usually presumed to be small but can affect ozone production and distribution, and this
15 fraction is generally not reported in emissions inventories. We have developed an accurate
16 method for determination of this primary NO₂ emission and demonstrated it during measurement
17 of on-road vehicle emission plumes from a mobile laboratory during July and August 2014 in the

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