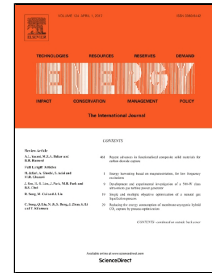


Accepted Manuscript

Combined effect of injection timing and injection angle on mixture formation and combustion process in a direct injection (DI) natural gas rotary engine

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PII: S0360-5442(17)30607-2
DOI: 10.1016/j.energy.2017.04.052
Reference: EGY 10692
To appear in: *Energy*
Received Date: 16 January 2017
Revised Date: 16 March 2017
Accepted Date: 09 April 2017

Please cite this article as: Baowei Fan, Jianfeng Pan, Wenming Yang, Zhenhua Pan, Stephen Bani, Wei Chen, Ren He, Combined effect of injection timing and injection angle on mixture formation and combustion process in a direct injection (DI) natural gas rotary engine, *Energy* (2017), doi: 10.1016/j.energy.2017.04.052

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Research Highlights

1. Mixture formation in the 3D flow field of a DI natural gas rotary engine was studied.
2. A reduced chemical mechanism was used to study the combustion process.
3. A theoretical guide for the optimization of the injection strategy was given.
4. The optimal injection strategy can benefit a high increase in the peak pressure.
5. The drawback of the optimal injection strategy is a certain increase in NO emissions.

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