

Optical diagnostics

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Traditional engine experiments provide limited information about the process inside the cylinder. With optical diagnostic methods very detailed information about temperature, concentrations and flow pattern can be obtained. This information can be used to improve the understanding of both traditional and alternative combustion concepts.

As an example, optical soot diagnostics has contributed to explain that diesel engine soot emissions are mainly governed by in-cylinder soot oxidation rather than soot formation. Optical diagnostics has also been used to explain the ignition process for low temperature combustion.

