

Informationen zur Recherchenstrategie

Pilotphase (vgl. ABI. EPA 2015, A86)

Die Art der auf diesem Blatt enthaltenen Informationen kann sich während des Pilotprojekts zur Verbesserung des Nutzens dieses neuen Dienstes ändern.

Anmeldenummer

PCT/EP2019/080352

ERFINDUNGSBEZEICHNUNG: VERFAHREN ZUM BETREIBEN EINER SENSOREINRICHTUNG ZUR DETEKTION VON PARTIKELN ODER AEROSOL, SOWIE SENSOREINRICHTUNG

ANMELDER: ROBERT BOSCH GMBH

IPC-KLASSIFIKATION: G01N15/02, G01N21/71, G01N15/06, G01N15/00

PRÜFER: Foster, Keir

KONSULTIERTE DATENBANKEN: ANSERA, EPODOC, NPL, WPI, GOOGLE SCHOLAR

KLASSIFIKATIONSSYMBOLLE, DIE DEN RECHERCHENUMFANG DEFINIEREN:

IPC:

CPC: G01N, G01N15, G01N21, G01N15/0205, G01N2015/0038, G01N2015/0046, G01N2015/0693, G01N21/71

FI/F-TERMS:

SCHLAGWÖRTER ODER SONSTIGE ELEMENTE, IN DENEN DIE ERFINDUNG VORKOMMT:

A method of operating a particle sensor especially suited to the detection of the density of soot particles in a fluid stream.

The sensor is based on the laser-induced incandescence (LII) of the particles. A laser spot of a given profile is focused in a spot in which the particles are flowing in the fluid so that the particles are heated to very high temperatures and begin to radiate thermal radiation which is detected by a suitable detector.

The temporal intensity of the detected LII signals is monitored and based on this a diagnosis relating to the correct functioning of the detector can be carried out.

For a given spot geometry a double peak is expected in the LII intensity versus time plots. Based on the specifics of the symmetry / shape / parameters of the double peak, or the absence thereof from the acquired signals - and with respect to the expected parameters of the double peak - an error diagnosis is made about sensor.