

Micro Burner for Flexible Tests

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Miniaturized reactor for catalytic oxidation of fuels

With the Catalyst Micro Burner Reactor CMBR the Institut für Mikrotechnik Mainz GmbH (IMM) has developed a miniaturized catalytic burner reactor. It is equipped with a stack of 1 to 16 micro structured platelets which can be coated with different carrier and catalyst substrates. The platelets are easily exchangeable. The CMBR is suitable for all types of heterogenous gas phase reactions with higher flow rates in the examination of catalysts and a power range up to 300 watt.

This innovation is offered for the first time in the third edition of the sales catalogue „The Catalogue – Process Technology of Tomorrow“.

Preheating of the CMBR test reactor is carried out electrically by heating elements. The test reactor can be operated with a flow rate of up to 40 metres per second and a maximum operating temperature of 550 degrees Celsius. Pressure stability was tested to 5 bar. In pilot tests with a process temperature of 130

degrees Celsius, 32 grams of methanol per hour were completely converted into carbon dioxide (CO₂) and water. Undesired side products were beyond what can be proved.

Standardized in- and outgoing connectors by Swagelok (USA) as well as measurements of 160 x 120 x 50 millimetres guarantee the compatibility with and possibility of integration in many test plants.

As an internationally operating service company for research and development in microtechnology, IMM is specialised in customised developments.

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Hall 13 (Energy – Hydrogen & Fuel Cell), booth E57/1
www.hannovermesse.de

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19th International Trade Fair and Analytica Conference
Hall A4, booth 373
www.analytica.de

11-15 May 2004, ACHEMASIA, Beijing, China
6th International Exhibition-Congress on Chemical Engineering and Biotechnology
Hall 2.0, booth E13
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