

Institute for Technical Chemistry (ITC) Combustion Technology

FuBe[®] - Tuning for your combustion process



Daniela Baris M. Sc., Dr.-Ing. Hans-Joachim Gehrmann, Dr. Hartmut Mätzing

Service FuBe®

FuBe[®] provides you the opportunity to characterise the combustion behaviour of solid fuels and to analyse the ashes of thermal processes regarding their further utilisation possibilities.

With FuBe[®] you get all relevant information about the fuel and its behaviour in the combustion plant as well as the optimal dimension and efficient operation of the facility. This applies especially to solid combustion residues. You can, for example, improve the profitability of the entire process by using ash as a fertilizer additive.

We'll be glad to assist you with selecting alternative fuels for your combustion facility and clarify the utilisation or disposal possibilities of the generated ash.



Figure 1: Solid Fuels Source: sikobau, Schmitz R

We recommend FuBe[®] to:

- Design and dimension new combustion plants
- Select fuels best suited for a new combustion plant
- Plan a change of fuel for an existing plant
- Characterise the combustion behaviour of a fuel

Advantages:

- Optimization of your Facility
- Economic Operation
- Fuel Flexibility
- Reduction of Corrosion
- Longer Lifetimes
- Conservation of natural resources due to an optimal use of fuels



5 Solarthe

Figure 2: Heat generation from renewable energy sources Source: FNR 2014

Geothermie

🔲 biogene gasförmige Brennstoffe 🛛 🔤 biogener Anteil des Abfalls

Why FuBe[®]?

Due to the growing public awareness of environmental protection and the conservation of natural resources, carbon neutral solid fuels have, supported by policy interventions, a growing importance for the production of heat and power.

The analysis package FuBe[®] uses procedures laid down in standard CEN/TR 15716:2008 (E) for characterising fuels.

2012 2013

Klar- und Deponiegas



The modular system of FuBe®

Due to the modular system of FuBe[®], the services offered can be combined individually. You can choose from the following offers:

With FuBe[®] a customer-oriented characterisation of the fuel and its combustion behaviour in the facility is guaranteed. We deliver results, which meet your needs precisely.



For optimal results, you can combine FuBe[®] with our other service SoWaCo[®], which provides further analysis options and optimisation possibilities for your whole facility.

Please contact us, if you are interested in:

- A characterisation of your fuel or if you plan a change of fuel
- A characterisation, calculation or consultation of your grate firing
- An analyse of the ash quality of your combustion plant
- Further information about FuBe[®] or our other Service SoWaCo[®]

For further information go to: https://www.itc.kit.edu/

Karlsruher Institut für Technologie Campus Nord Hermann-von-Helmholtz-Platz 1 76344 Eggenstein-Leopoldshafen



Daniela Baris M. Sc. Tel.: +49 721 608-24134 E-Mail: daniela.baris@kit.edu



Dr.- Ing. Hans-Joachim Gehrmann Tel.: +49 721 608-23342 E-Mail: hans-joachin.gehrmann@kit.edu