

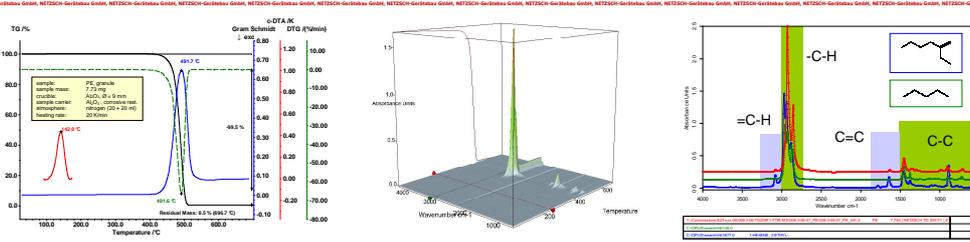
# CHARACTERIZATION OF POLYMERS BY MEANS OF TG-FTIR (I)



Ekkehard Füglein and Claire Louis

NETZSCH-Gerätebau GmbH, Wittelsbacherstraße 42, D-95100 Selb, Germany

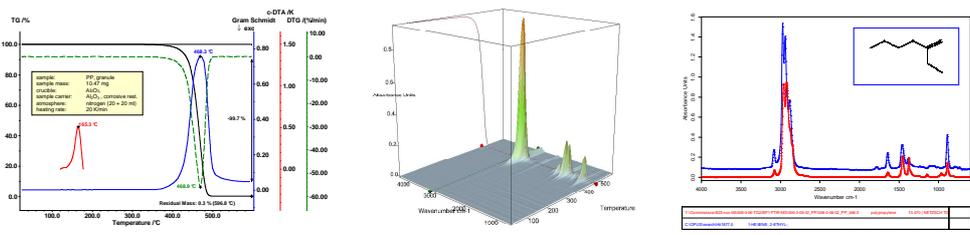
PE



Temperature of decomposition (DTG minimum):  
**492°C**

Main decomposition products:  
branched chained, unsaturated hydrocarbon

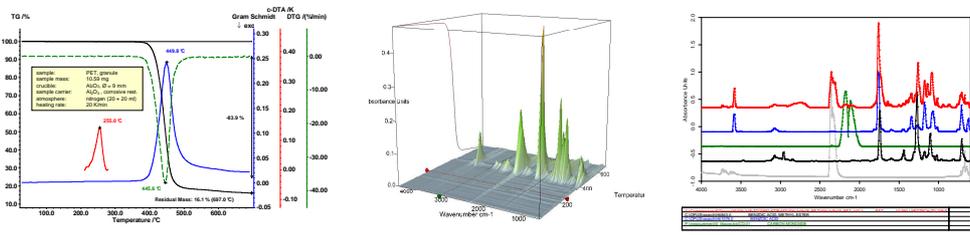
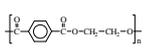
PP



Temperature of decomposition (DTG minimum):  
**469°C**

Main decomposition products:  
branched chained, unsaturated hydrocarbon

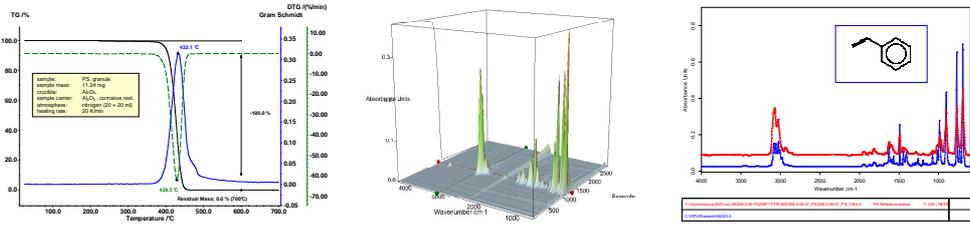
PET



Temperature of decomposition (DTG minimum):  
**446°C**

Main decomposition product:  
benzoic acid and its derivatives, carbon dioxide

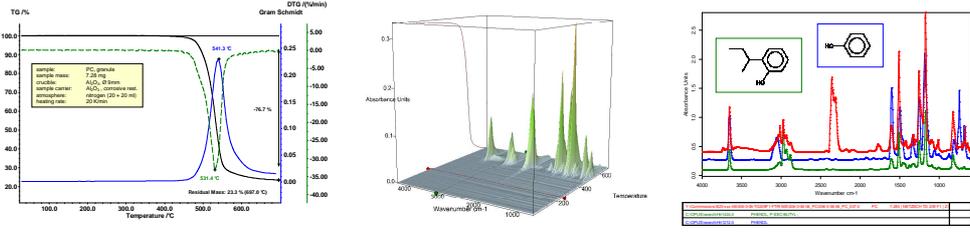
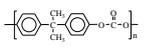
PS



Temperature of decomposition (DTG minimum):  
**430°C**

Main decomposition product:  
styrene

PC



Temperature of decomposition (DTG minimum):  
**532°C**

Main decomposition product:  
branched chained phenoles

All measurements were carried out employing alumina crucibles, heating rate: 20 K/min, atmosphere: nitrogen, purge gas flow rate: 40 ml/min