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【805】 Thermal characteristics of cellulose in relation to forest fire

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Cellulose is a carbohydrate present at least in the composition of food, paper, textile and wood. In wood it is the most abundant component. The thermal characteristics of the polysaccharide cellulose in relation to forest fire are mainly:

specific heat, exothermic decomposition (pyrolysis) onset temperatures, enthalpy of decomposition (pyrolysis), (self)-ignition temperature, heat of combustion, explosion parameters, flammability. Data of most of these parameters will be indicated and the instruments used for their determinations (high pressure Differential Thermal Analysis (DTA), heat flux calorimetry, Siwek 20 l sphere,...) will be presented briefly (1). Strategies of intervention against forest fire will also be proposed for discussion.

1) A. Raemy, P. Lambelet and J. Loeliger, *Thermochim.Acta*, 95 (1985) 441-446.

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