LETTER TO THE EDITOR

IGNITION OF WOOD SAMPLES IN LABORATORY OVENS

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A recent paper in this journal [1] is concerned with pyrolysis of wood in ovens, and in describing the experiments the authors state that they avoid high oven temperatures to prevent ignition of the wood samples. Since the wood samples are in the form of blocks, it is improbable that ignition would occur, because oxidation rate is limited by the resistance to oxygen diffusion in a solid block. Where wood ignition occurs in ovens samples are either sawdust, wood chips or wood fibre insulation products [2]. The present author in unpublished work from the 1990s discovered that a tightly compacted peat briquette consolidated with a binder would not ignite in an oven, for the same reason. The peat briquettes were therefore crushed for oven heating test work, and the results from that were published [3]!

At a sufficiently high oven temperature for combustion of the wood blocks in [1], the phenomenology would be more likely to have been erosion and charring of the outside surfaces of the samples than ignition.

I appeal to the authors of [1] to note these points.

REFERENCES