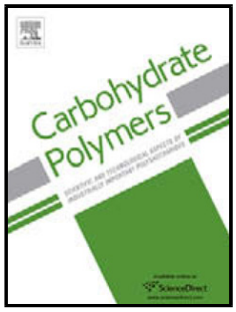

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How amylose molecular fine structure of rice starch affects functional properties

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Highlights

- A new methodology shows amylose fine structure influences pasting & gelatinization
- Peak and trough viscosities are increased by short and medium amylose chains
- Peak, trough & setback viscosities are suppressed by long amylose chains
- Molecular mechanisms are put forward to explain these new observations

Abstract

Starch molecular fine structure can have significant effects on pasting and thermal properties of rice flour. This study investigates the mechanistic explanation of these effects, by obtaining