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# Compatibilization of co-plasticized cellulose acetate/water soluble polymers blends by reactive extrusion

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15 biodegradation, biopolymer, reactive compatibilization

**ABSTRACT.** The present work reports the preparation of biodegradable blends of cellulose acetate (CA) with two water soluble polymers; polyvinyl alcohol (PVOH) and the bio-sourced hydroxyethyl cellulose (HEC). Like CA, HEC is advantageously both biodegradable and bio-sourced. For that purpose, plasticization of CA and PVOH was conducted by melt  
20 extrusion using triacetin and glycerol, respectively, while a two-step method consisting in a premixing step of HEC with plasticizer in presence of water, followed by the melt processing

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