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SEM

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	(cp) °C
	: M _w M _n

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mesh

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HAAKE

HBI system

BUCHLER

g/ min

°C

/ g/cm³

RPM

Eastman

(MAPP)

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MAPP

mesh

.MAPP

mesh

MPa

°C

°C

Young, Toriz

Fujii, Oin

S

Cambridge

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			WS-PP
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SEM

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ASTM

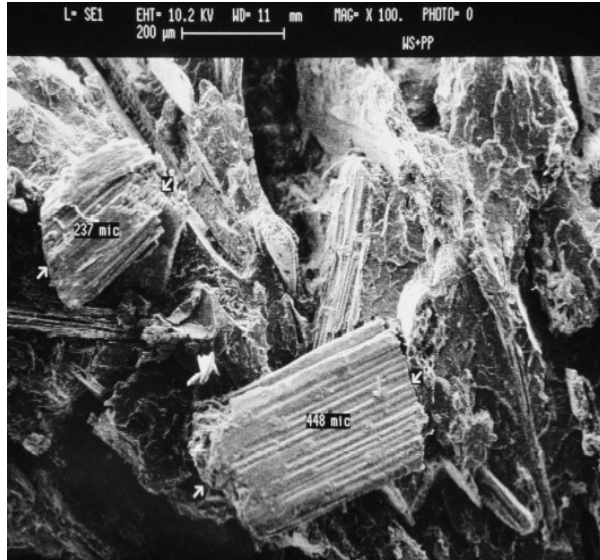
M-I ASTM D

mm/min

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ASTM D

MAPP

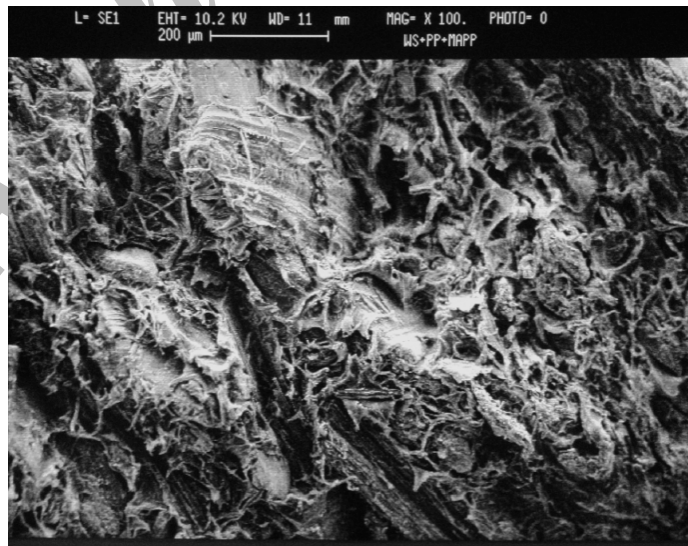


(x)

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(x) MAPP

SEM



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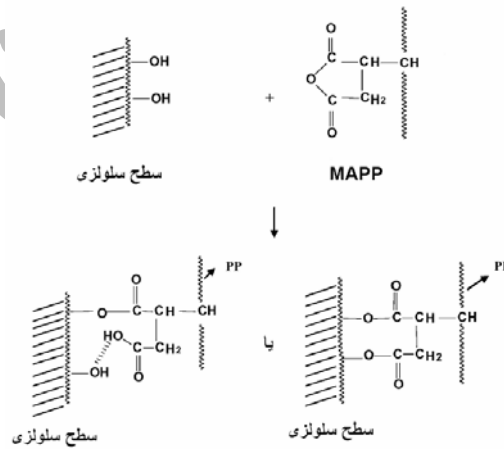
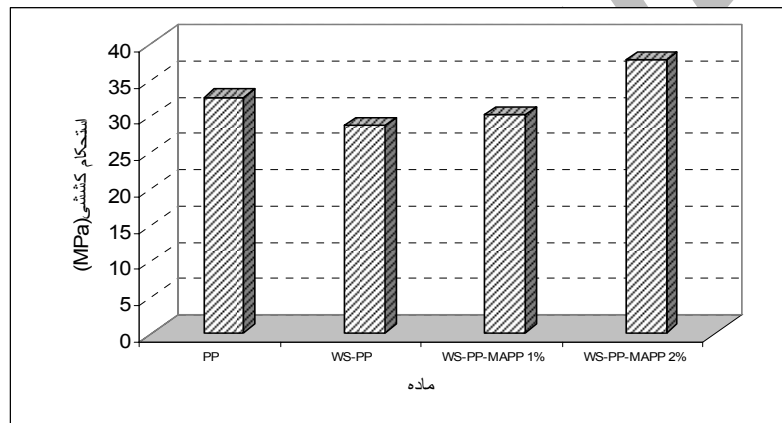
SEM

(Shore D)	(J/m)				
		(%)	(MPa)	(MPa)	
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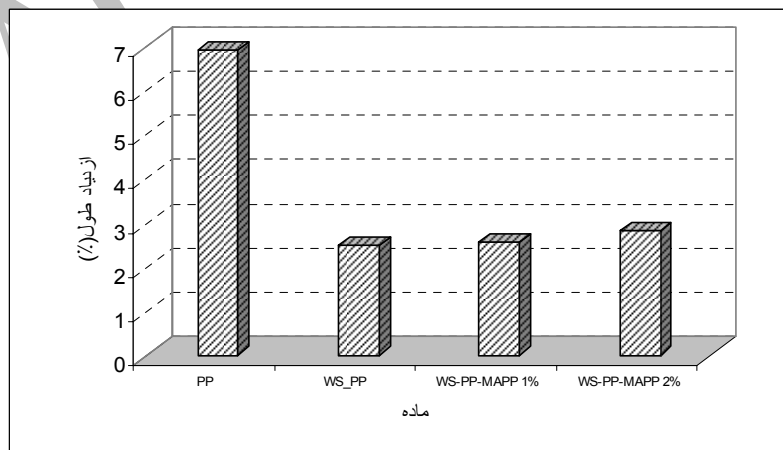
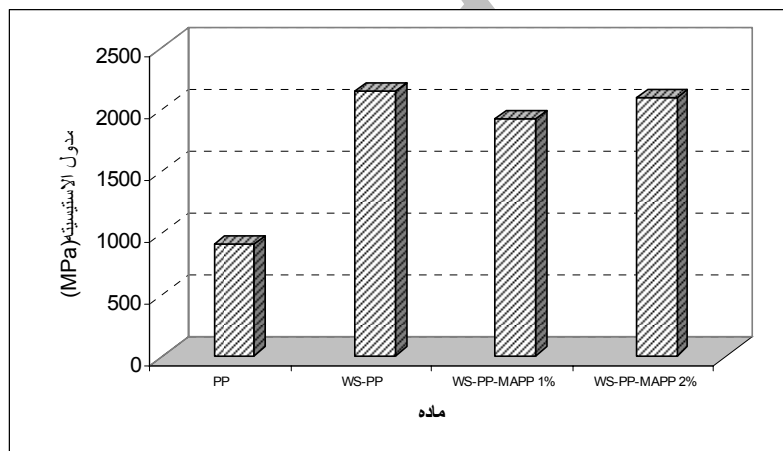
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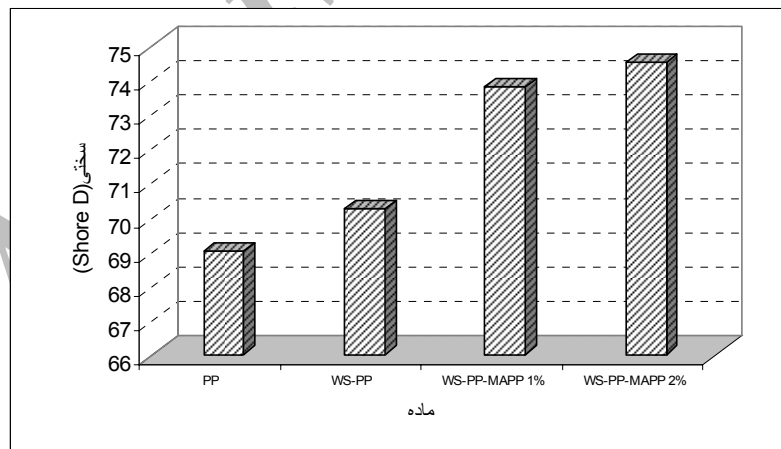
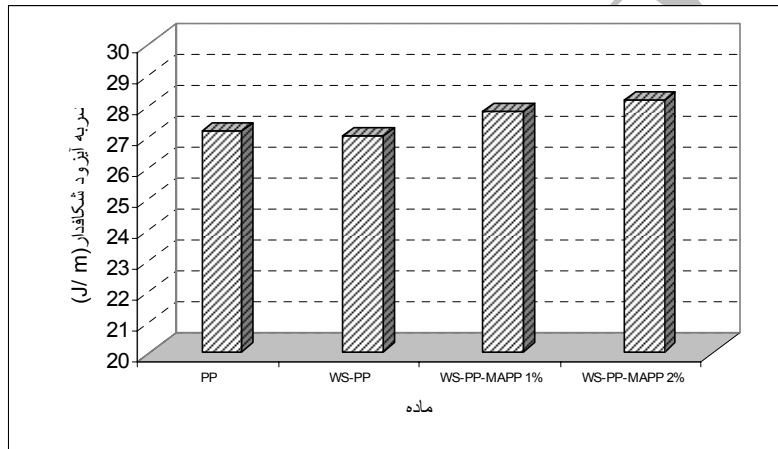
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Mechanical and Morphological Properties of Wheat Straw-polypropylene Composites

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(Received 14 May 2005, Accepted 3 September 2005)

Abstract

In this research, the effect of MAPP coupling agent on the mechanical and morphological properties of wheat straw-polypropylene composite was investigated. This composite is prepared using melt blending at 190 °C. Measuring the mechanical properties of the composites indicates that MAPP improves tensile strength, tensile modulus, notched Izod impact and hardness of the composites and reduces tensile elongation at maximum load. SEM micrographs of tensile fracture surface of the composites indicate that MAPP improves interaction and adhesion between polypropylene and wheat straw particles, and due to activating effect of MAPP; the wheat straw particles are coated by polypropylene more effectively.

Keywords: Wheat straw, Polypropylene, Composite, Morphological, MAPP, SEM micrograph, Mechanical strength.

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