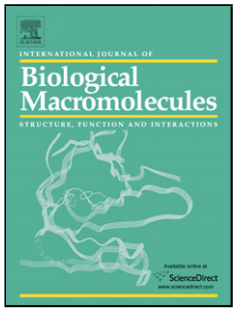

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Preparation of poly(lactide)/lignin/silver nanoparticles composite films with UV light barrier and antibacterial properties

Running title: PLA/lignin/AgNPs composite films

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Highlights

- Organosolv lignin was used as a reducing agent for the preparation of silver nanoparticles.
- AgNPs were reinforced into PLA polymer to prepare composite films.
- Mechanical and water vapor barrier properties of the composite films increased.
- Composite films exhibited potent antibacterial activity.