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Starch-containing textile wastewater treatment for biogas and microalgae biomass production

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### **ACCEPTED MANUSCRIPT**

#### **HIGHLIGHTS**

- Carbon adsorption, anaerobic digestion and microalgae cultivation were combined.
- Textile desizing wastewater (TDW) was efficiently treated to produce H<sub>2</sub> and CH<sub>4</sub>.
- Removal rates reached 90% for color, chemical oxygen demand and organic acids.
- Scenedesmus sp. cultivated directly in digestate had specific growth rate 0.53 d<sup>-1</sup>.
- A scenario of treating 1000 m<sup>3</sup>/d TDW was analyzed.

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