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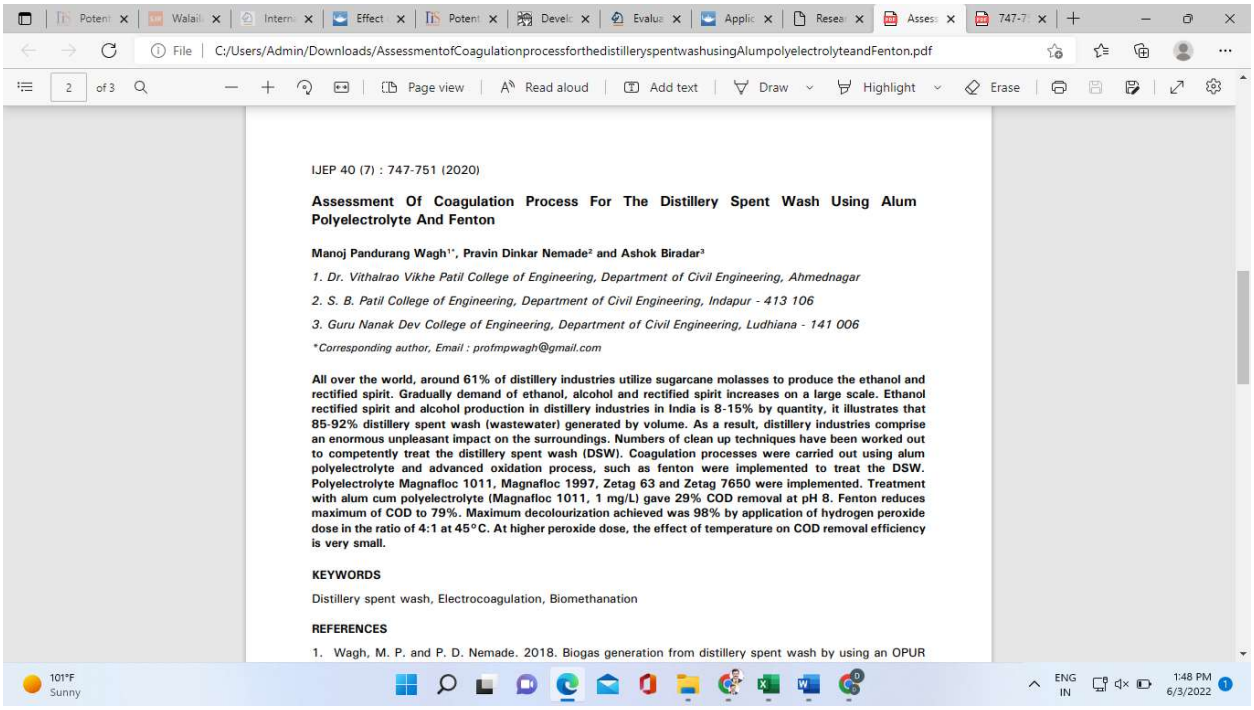

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Assessment Of Coagulation Process For The Distillery Spent Wash Using Alum Polyelectrolyte And Fenton

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All over the world, around 61% of distillery industries utilize sugarcane molasses to produce the ethanol and rectified spirit. Gradually demand of ethanol, alcohol and rectified spirit increases on a large scale. Ethanol rectified spirit and alcohol production in distillery industries in India is 8-15% by quantity, it illustrates that 85-92% distillery spent wash (wastewater) generated by volume. As a result, distillery industries comprise an enormous unpleasant impact on the surroundings. Numbers of clean up techniques have been worked out to competently treat the distillery spent wash (DSW). Coagulation processes were carried out using alum polyelectrolyte and advanced oxidation process, such as fenton were implemented to treat the DSW. Polyelectrolyte Magnafloc 1011, Magnafloc 1997, Zetag 63 and Zetag 7650 were implemented. Treatment with alum cum polyelectrolyte (Magnafloc 1011, 1 mg/L) gave 29% COD removal at pH 8. Fenton reduces maximum of COD to 79%. Maximum decolourization achieved was 98% by application of hydrogen peroxide dose in the ratio of 4:1 at 45°C. At higher peroxide dose, the effect of temperature on COD removal efficiency is very small.

KEYWORDS

Distillery spent wash, Electrocoagulation, Biomethanation

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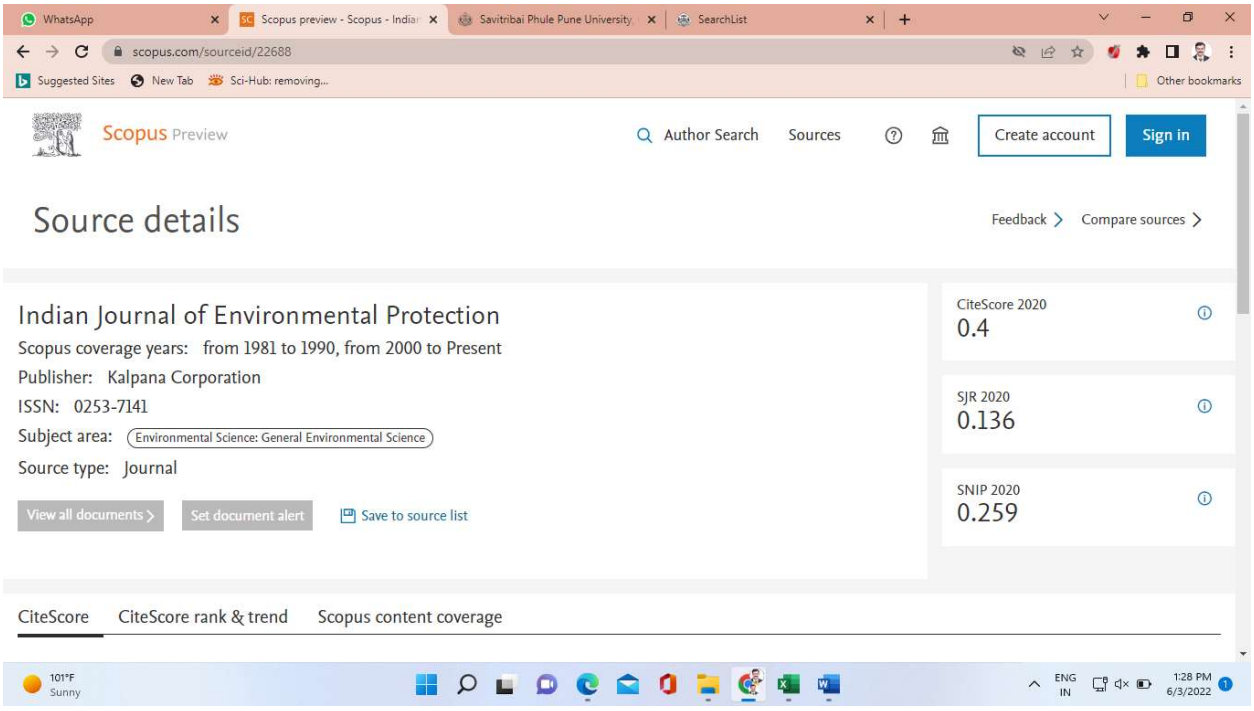

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