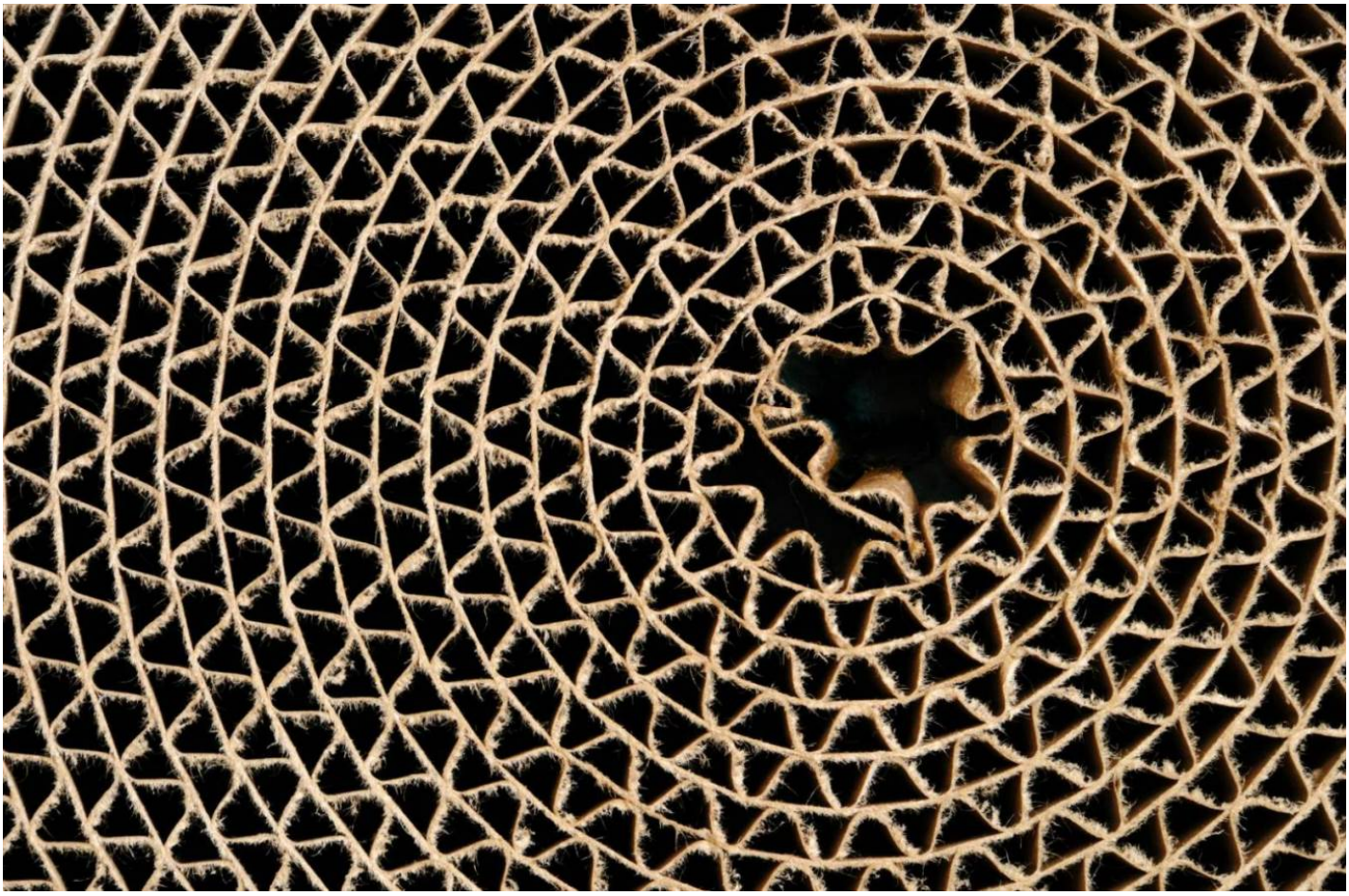
De-Inking Technology Enhances The Value Of Recycled Material

University of Georgia



Adequately removing ink from wastepaper pulp has always been a challenge for the paper industry. De-inked pulps that appear dirty and dark are less in demand and have fewer markets, especially for high-quality printing, writing and tissue paper grades.

Karl-Erik Eriksson, Ph.D., a Swedish researcher who joined the University of Georgia faculty in 1988, conducted extensive research on the use of enzymes to treat recovered wastepaper fibers. He discovered that the application of certain mixes of enzymes to wastepaper enhanced the detachment of inks and contaminants, making them more easily removed during the de-inking (recycling) process. The technology works through a variety of mechanisms that treat the fibers, coatings, inks and sticky contaminant materials.

> *Enzymatic treatments of recovered fiber results in cleaner and brighter de-inked pulp stock, which translates into better-looking final recycled paper sheets.*

Making cleaner wastepaper pulp enables mills to use cheaper and dirtier wastepaper, which reduces the use of virgin pulp, lowers the costs of production, opens up more outlets for low-grade wastepaper and ultimately raises the

incentives for broader wastepaper collection and use.

In 1994 Eriksson's process of enzymatic treatment of recovered fibers was licensed exclusively to Enzymatic Deinking Technologies, LLC (EDT). EDT now has more than 40 applications running this technology worldwide and has made considerable advances in tailoring the technology for mill-scale use. The technology is being used globally to treat more than three million tons of wastepaper annually.

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